



**Georgia Department of Transportation  
Design-Build Contract**

**I-85 Widening Project**

**PI No. 110610-**

**Gwinnett, Barrow, and Jackson Counties**

**Dated Advertisement: November 16, 2016**

**Amendment # 1: June 30, 2017**

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**Let Date: September 15, 2017**



**DESIGN-BUILD AGREEMENT  
FOR  
I-85 WIDENING PROJECT  
PI No. 110610**

**Between**

**State Road and Tollway Authority,**

**a body corporate and politic and an instrumentality and**

**public corporation of the State of Georgia**

**and**

**C.W. Matthews Contracting Co., Inc.,  
a Corporation**



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## DESIGN-BUILD AGREEMENT FOR I-85 WIDENING PROJECT

This Design and Build Agreement for the I-85 Widening Project (this "Agreement", or "DB Agreement" or the "Agreement") is entered into and effective as of <sup>December</sup> 11, 2017 by and between the State Road and Tollway Authority, a body corporate and politic and an instrumentality and public corporation of the State of Georgia, ("SRTA"), and C.W. Matthews Contracting Co., Inc., a Corporation ("DB Team").

### R E C I T A L S

A. Pursuant to the Official Code of Georgia Annotated Section 32-10-60, et seq. (the "SRTA Act"), particularly Section 32-10-60(5) of the SRTA Act, SRTA is authorized to undertake certain "project[s]," approved by SRTA and the Georgia Department of Transportation ("GDOT").

B. Pursuant to Section 32-10-63(5) of the SRTA Act, SRTA is permitted to make "contracts, leases, or conveyances as ... legitimate and necessary" to carry out the purpose for which it was created.

C. Pursuant to the SRTA Act, GDOT, as grantor, on even date herewith, has entered into that certain estate for years with SRTA, as grantee, relating to the real estate interests needed to advance the development of the hereinafter referenced Project (the "Estate for Years"), as contemplated in the SRTA Act and the Official Code of Georgia Annotated (the "Code").

D. Pursuant to Section 32-2-81 of the Code, "the term 'design-build procedure'" means a method of contracting under which GDOT "contracts with another party for the party to both design and build the structures, facilities, systems, and other items specified in the contract." GDOT may use the design-build procedure for buildings, bridges and approaches, rail corridors, technology deployments, and limited or controlled access projects or projects that may be constructed within existing rights of way where the scope of work can be clearly defined or when a significant savings in project delivery time can be attained.

E. GDOT, pursuant to Article IX, Section III, Paragraph I (a) of the Constitution of the State and Section 32-2-61 of the Code, is permitted to enter into intergovernmental contracts including with SRTA.

F. GDOT and SRTA are parties to that certain I-85 Widening Project Intergovernmental Agreement (the "Intergovernmental Agreement") setting forth certain terms and conditions pursuant to which, among other things, the parties will assist one another in connection with the design, construction, and maintenance (during construction) of the Project, SRTA has memorialized its acceptance of the RFP selection recommendation made by the State Transportation Board, and SRTA has designated GDOT as the project manager and agent for SRTA in respect of the transactions contemplated herein.

G. The State Transportation Board and SRTA have each passed a joint resolution (the "Joint Resolution") pursuant to which the State Transportation Board will transfer certain moneys owed by SRTA to DB Team under the terms of this Agreement.

H. Pursuant to the provisions of the Code and Chapter 672-18 of the Rules of the State Department of Transportation (the "Rules"), GDOT issued a Request for Qualifications ("RFQ") on March 24, 2017, as amended, requesting submittals of a Statement of Qualifications

(“SOQ”) from respondents desiring to develop the I-85 Widening Project (the “Project”) through a Design-Build Agreement.

I. GDOT received four (4) responsive SOQ by April 28, 2017, and subsequently Shortlisted or qualified three (3) responsive Proposers.

J. On May 26, 2017, GDOT issued to the shortlisted Proposers a Request for Proposals (“RFP”) with respect to the Project.

K. On August 25, 2017, GDOT received responses to the RFP, including the response of C.W. Matthews Contracting Co., Inc., on behalf of DB Team (the “Proposal”).

L. As part of the RFP, GDOT required that Shortlisted Proposers commit to entering into an Agreement with SRTA for the design and construction of the Project.

M. An RFP Technical Review Committee comprised of GDOT staff determined the DB Team was the Proposer which best met the selection criteria contained in the RFP.

N. SRTA has been authorized to enter into this Agreement, and the other DB Documents, each of which forms a part hereof, pursuant to, among others, Section 32-10-63(5) of the SRTA Act, all for the express purpose of facilitating the public-private partnership contemplated under the Code and the Rules, and thereby serving the best interests of the citizens of this State.

NOW, THEREFORE, in consideration of the Work to be performed by DB Team, and DB Team’s obligations with respect thereto, the foregoing premises and the covenants and agreements set forth herein, the Parties hereby agree as follows:

**Article 1      DEFINITIONS; DB DOCUMENTS; ORDER OF PRECEDENCE;  
PRINCIPAL PROJECT DOCUMENTS**

**1.1      Abbreviations and Definitions**

Abbreviations and definitions for certain terms used in this Agreement and the other DB Documents are contained in Exhibit 1. Other definitions may be identified within the text of the DB Documents.

**1.2      DB Documents; Order of Precedence**

Each of the DB Documents is an essential part of the agreement between the Parties. The DB Documents are intended to be complementary and to be read together with this Agreement as a complete agreement. Each of the DB Documents (other than this Agreement) is hereby expressly incorporated herein by reference.

**1.2.1** Subject to Article 1.2.2, in the event of any conflict, ambiguity or inconsistency among the DB Documents, the order of precedence, from highest to lowest, shall be as follows:

**1.2.1.1** Supplemental Agreements, Agreement amendments, and Change Orders and all exhibits, riders, and attachments thereto;

**1.2.1.2** The Agreement (also referred to as Volume 1) and all exhibits thereto (other than Exhibit 2);

**1.2.1.3** Volume 2 “Technical Provisions for Design-Build Agreement” amendments, and all exhibits and attachments to such amendments;

**1.2.1.4** Volume 2 “Technical Provisions for Design-Build Agreement”, and all exhibits and attachments to the Technical Provisions;

**1.2.1.5** Volume 3 “Programmatic Technical Provisions for Design-Build Agreement” amendments, and all exhibits and attachments to such amendments;

**1.2.1.6** Volume 3 “Programmatic Technical Provisions for Design-Build Agreement”, and all exhibits and attachments thereto;

**1.2.1.7** Volume 3 “Manuals (Technical Documents) amendments; provided that GDOT in its sole discretion may designate that such amendments or portions thereof take precedence over the Technical Provisions to the extent provided in Articles 7.2.5;

**1.2.1.8** Volume 3 Manuals (Technical Documents);

**1.2.1.9** DB Team’s Proposal commitments set forth in Exhibit 2 hereto, including DB Team’s Schematic Plan of Project and related Early Portions of the Work; provided that, to the extent specified in Exhibit 2, certain provisions therein shall supersede the specified provisions of the other DB Documents.

**1.2.1.10** If the Proposal, including DB Team’s Schematic Plan of Project, includes statements, offers, terms, concepts or designs that can reasonably be interpreted as offers to provide higher quality items than otherwise required by the other DB Documents or to perform services or meet standards in addition to or better than those otherwise required, or otherwise contains terms or designs which are more advantageous to SRTA than the requirements of the other DB Documents, as reasonably determined by SRTA, then DB Team’s obligations hereunder shall include compliance with all such statements, offers, terms, concepts and designs, which shall have the priority of Agreement amendments (Article 1.2.1.1) and Technical Provisions amendments (Article 1.2.1.3), as applicable.

**1.2.2** If the DB Documents contain differing provisions on the same subject matter, the provisions that establish the higher quality manner or method of performing the Work or use more stringent standards will prevail. Additional details in a lower priority DB Document shall be given effect except to the extent they irreconcilably conflict with requirements, provisions and practices contained in the higher priority DB Document. If the DB Documents contain differing provisions on the same subject matter that cannot be reconciled by applying the foregoing rules, then the provisions (whether setting forth performance or prescriptive requirements) contained in the document of higher order of precedence shall prevail over the provisions (whether setting forth performance or prescriptive requirements) contained in the document of lower order of precedence.

**1.2.3** Where there is an irreconcilable conflict among any standards, criteria, requirements, conditions, procedures, specifications or other provisions applicable to the Project set forth in one or more manual(s) or publication(s) referenced within a DB Document or set of DB Documents with the same order of priority (including within documents referenced therein), the standard, criterion, requirement, condition, procedure, specification or other provision offering higher quality or better performance will apply, unless SRTA in its sole discretion approves otherwise in writing. If there is an irreconcilable conflict between manuals or

publications referenced in DB Document of differing priorities, the order of precedence set forth in Article 1.2.1 will apply. If either Party becomes aware of any such conflict, it shall promptly notify the other party of the conflict in writing. GDOT, as SRTA's agent, shall issue a written determination respecting which of the conflicting items is to apply promptly after it becomes aware of any such conflict.

### **1.3 Reserved**

### **1.4 Project Administration**

#### **1.4.1 Intergovernmental Agreement**

**1.4.1.1** SRTA and GDOT have entered into the Intergovernmental Agreement pursuant to which GDOT shall serve as the agent, representative and manager for this Project, as set forth in accordance with the terms of this Agreement, subject to the terms and conditions of this Section. During the Term, SRTA shall provide DB Team with copies of any notice of termination or expiration of the Intergovernmental Agreement.

**1.4.1.2** SRTA's and DB Team's rights and obligations under the DB Documents are independent of, and are not conditioned upon, ancillary to or otherwise affected, diminished or altered in any way, by the terms of, effectiveness, enforceability or continuation of the Intergovernmental Agreement.

**1.4.1.3** Pursuant to the Intergovernmental Agreement, SRTA has appointed GDOT to act on behalf of SRTA, as its agent, with respect to certain aspects of the Project and, in such capacity, GDOT shall provide Project oversight and administration on behalf of SRTA, including serving as the payment review and approval agent for amounts due to DB Team pursuant to this Agreement, conducting inspections, approving requisitions, and coordinating with and relaying decisions on behalf of SRTA with respect to the Project. Unless and until DB Team is notified in writing by SRTA to the contrary, all notices, consents, directions, decisions, approvals, acceptances, and instructions to be given by, and all notices, reports, analysis, surveys, invoices, studies, plans, and all Submittals to be delivered to SRTA with respect to the Project, shall be taken, given, directed and made through GDOT, subject to copies of such written notices to be delivered to SRTA as required pursuant to Article 24.11. The general administration of the Project by GDOT is for the sole purpose of representing the public's interests, and the interests of GDOT and SRTA, in determining that Work is executed in accordance with the DB Documents and in furtherance of Article 6.3.12. Notwithstanding the foregoing, SRTA has expressly reserved and retained the obligation to issue payments for amounts due to DB Team pursuant to this Agreement.

**1.4.1.4** Unless DB Team receives written direction from SRTA otherwise, DB Team shall be entitled to rely on any such act, notice or statement of GDOT as if it were undertaken or given by SRTA.

### **1.5 Reference Information Documents**

**1.5.1** DB Team acknowledges that SRTA has provided and disclosed to DB Team the Reference Information Documents ("RID"). The RID are not mandatory or binding on DB Team. DB Team is not entitled to rely on the RID as presenting design, engineering, operating or maintenance solutions or other direction, means or methods for complying with the requirements of the DB Documents, Governmental Approvals or Law.

**1.5.2** Except as expressly set forth herein, DB Team acknowledges that neither SRTA nor GDOT represents nor warrants that the information contained in the RID is complete or accurate or that such information is in conformity with the requirements of the DB Documents, Governmental Approvals or Laws, and neither SRTA or GDOT is responsible or liable in any respect for any causes of action, claims or Losses whatsoever suffered by any DB Team-Related Entity by reason of any use of information contained in, or any action or forbearance in reliance on, the RID.

## **1.6 Errata to the GDOT Standard Specifications**

**1.6.1** In interpreting standards, policies and specifications referenced in the latest edition of the GDOT Standard Specifications, Construction of Transportation Systems the following apply:

- (a) References to the project owner shall mean GDOT.
- (b) References to the Engineer in the context of provider of compliance judgment may mean the Designer Quality Assurance Manager or Engineer of Record, as applicable, or it may mean a GDOT representative, depending on the context, as determined by GDOT in its sole discretion and without recourse for the DB Team.
- (c) References to “plan(s)” shall mean the DB Documents.
- (d) Cross-references to measurement and payment provisions contained in the referenced standards, policies and specifications shall be deemed to refer to the measurement and payment provisions contained in the DB Documents.
- (e) Any conflicts, ambiguities, or lack of clarity in regard to items included in the provisions, terms, or definitions used will be interpreted and defined by GDOT in its sole discretion. The DB Team shall not take advantage of any apparent conflict, omission, ambiguity, inconsistency, inaccuracy, deficiency, or inadequacy related to the definition of roles and responsibilities in the execution of the Work. Should it appear that any definition of roles and responsibilities is contrary to the philosophy of those established by the Design Build Agreement, it is the responsibility of the DB Team to request a determination by GDOT related to the respective roles and responsibilities of the DB Team and GDOT.

## **Article 2 GRANT OF AUTHORITY AND RIGHT OF WAY**

### **2.1 Grant of Authority for Undertaking**

**2.1.1** SRTA hereby grants to DB Team the revocable right, and DB Team accepts the obligation, to design and construct (including any maintenance obligations during such period as required pursuant to the DB Documents) the Project in accordance with the requirements of this Agreement and the other DB Documents.

### **2.2 Right of Way; Construction Easement; Ownership**

**2.2.1** The Project shall be constructed on and within the property as identified in the NEPA Approval and any amendment thereto (the “Property”). SRTA shall provide DB Team with

access rights to the Property, together with the Existing Right of Way and State Proposed/State Acquired Right of Way as set forth in this Section 2.2.

**2.2.1.1** SRTA and DB Team acknowledge and agree that GDOT is and shall remain throughout the Term the sole owner of fee title to the Property, SRTA is and shall remain throughout the Term the sole owner of a lessee's interest in and to the leasehold estate and interests provided under the Estate for Years, and that the Project and all improvements located thereon from time to time shall be and remain the property of SRTA or GDOT, to the extent of their respective interests of record or as they may otherwise agree from time to time, as applicable.

**2.2.1.2** SRTA and GDOT have reserved the right to enter upon, possess, control and utilize the Property with or without payment of compensation to DB Team in accordance with this Agreement.

**2.2.1.3** SRTA and GDOT have granted, and have further reserved the right to grant, to other parties utility and other permits and easements and modifications thereto and rights of use to the Property subject to the limitations of the DB Documents.

## **2.2.2 Existing Right of Way, State Proposed/State Acquired Right of Way**

**2.2.2.1** Upon the terms and conditions of this Agreement, including as set forth in this Section 2.2, and subject to the terms and conditions of the DB Documents, as of the Effective Date, SRTA shall and does, subject to and upon issuance of NTP 1:

(a) grant to DB Team a non-exclusive right of access, ingress and egress (and the right to grant to DB Team-Related Entities a non-exclusive right of access, ingress and egress) to all real property comprising the Existing Right of Way as more particularly described and designated in Exhibit 4, subject to the exclusions and reservations set forth in this Agreement, in accordance with the terms described in the DB Documents, and

(b) as and to the extent that SRTA, has acquired a right of access or interest in State Proposed/State Acquired Right of Way as described and designated in Exhibit 4, grant to DB Team a non-exclusive right of access, ingress and egress (and the right to grant other DB Team-Related Entities a non-exclusive right of access, ingress and egress) to such State Proposed/State Acquired Right of Way.

**2.2.2.2** GDOT shall be responsible for all costs, expenses and delays (including the purchase prices and court awards or judgments) associated with acquiring the State Proposed/State Acquired Right of Way.

## **Article 3 CONTRACT TIME**

### **3.1 Term of Agreement**

**3.1.1** This Agreement shall remain in effect until Final Acceptance, subject to the survival of all such obligations as expressly provided herein, including without limitation, any warranty periods (the "Term"); provided that this Agreement shall be subject to earlier termination in accordance with the terms of this Agreement and the DB Documents.

### **3.2 Project Schedule**

**3.2.1** As a material consideration for entering into this Agreement, DB Team hereby commits, and SRTA is relying upon DB Team's commitment, to develop, design and fully construct the Project in accordance with the milestones and time periods set forth in this Agreement and the other DB Documents, including without limitation, in the Technical Provisions, the Project Schedule and Completion Deadlines, including Interim Completion Deadlines, subject only to delays caused by Relief Events specifically provided hereunder. The time limitations set forth for DB Team's performance of its covenants and obligations as required pursuant to the DB Documents, including without limitation performance of the Work as required pursuant to the Completion Deadlines, including Interim Completion Deadlines, and Project Schedule, are of the essence, and except where this Agreement expressly provides for extension of time due to a Relief Event or allows delay subject to payment of Liquidated Damages or other compensation to SRTA, DB Team waives any right at law or in equity to tender or complete performance beyond the applicable time period, or to require SRTA to accept such performance. All references to days shall mean Calendar Days unless otherwise specified.

**3.2.2** DB Team shall achieve the Interim Completion Date of each Early Portion of the Work on or before each of the applicable Interim Completion Deadlines, Substantial Completion on or before the Substantial Completion Deadline and Final Acceptance on or before the Final Acceptance deadline, time being of the essence.

**3.2.3** DB Team hereby represents and warrants that the Preliminary Baseline Schedule is in the form described in the Technical Provisions, has been developed in accordance with the Work Breakdown Structure requirements under Section 2 of the Technical Provisions, and is consistent with the Milestone Schedule set forth in Exhibit 9 to this Agreement. DB Team shall use the Preliminary Baseline Schedule as a foundation to prepare a proposed Project Baseline Schedule for GDOT's review and acceptance prior to issuance of NTP 3, as set forth in Section 2 of the Technical Provisions. The Parties shall use the Preliminary Baseline Schedule for planning, monitoring, and, once cost-loaded and accepted, payment for the progress of the Work until such time that the cost-loaded Project Baseline Schedule is accepted by GDOT. The proposed Project Baseline Schedule shall be consistent with the Preliminary Baseline Schedule and Milestone Schedule except to the extent for adjustments as provided in the DB Documents and as accepted by GDOT.

**3.2.4** All Float contained in the Project Baseline Schedule shall be considered a shared resource among GDOT and the DB Team, available to any or all such parties as needed to absorb delay caused to the Critical Path components as set forth in the Project Schedule or Milestone Schedule deadlines, whether on account of Relief Events or other events of delay not constituting Relief Events. All Float shall be shown as such in the Project Schedule on each affected schedule path. GDOT shall have the right to examine the identification of (or failure to identify) Float on the Project Schedule in determining whether to accept the Project Schedule. Once identified, DB Team shall monitor and account for Float in accordance with Critical Path methodology.

### **3.3 Contract Time, Date of Commencement, and Notice to Proceed**

**3.3.1** DB Team's time period for completion of the Work is the period from the Effective Date through the Final Acceptance Date, as may be adjusted for any Relief Event as expressly

provided in the Agreement (the “Contract Time”). All Work shall be performed in accordance with the Milestone Schedule attached as Exhibit 9.

**3.3.1.1** SRTA anticipates issuing NTP 1 promptly following the Effective Date, and shall in any case provide for issuance of NTP 1 within thirty (30) days from DB Team’s satisfaction of the conditions for execution of the Agreement. Issuance of NTP 1 authorizes DB Team to commence preliminary design activities. Title 23, Code of Federal Regulations (CFR), Section 636.103 (23 CFR Section 636.103) defines preliminary design to include, but is not limited to, preliminary engineering and other activities and analyses, such as topographic surveys, metes and bounds surveys, geotechnical investigations, hydrologic analysis, hydraulic analysis, utility engineering, traffic studies, financial plans, revenue estimates, hazardous materials assessments, general estimates of the types and quantities of materials, and other Work needed to establish the parameters for the Final Design. Prior to completion of the Environmental Documents review process, any such preliminary engineering and other activities and analyses must not materially affect the objective consideration of alternatives in the Environmental Documents review process. Preliminary design activities shall be completed in accordance with the Management Plans, the Technical Provisions, and other activities anticipated to be performed after NTP 1, including satisfying the conditions to issuance of NTP 3 under Article 3.3.1.3.

**3.3.1.2** Issuance of NTP 2 authorizes the DB Team to perform all NTP 1 activities, Final Design activities, and any other activities required for start of the Construction Work.. Title 23, CFR, Section 636.103 (23 CFR Section 636.103) defines Final Design as any design activities following preliminary design and expressly includes the preparation of final construction Plans and detailed specifications for the performance of Construction Work. NTP 2 will be issued once the Environmental Documents are approved, or with NTP 1 if the Environmental Documents have been approved by the Agreement execution date.

**3.3.1.3** Issuance of NTP 3, also referred to as Released for Construction (“RFC”), authorizes DB Team to perform all other Work and activities pertaining to the Project, subject to conforming RFC Plans as may be related to commencement of any Element of the Construction Work. DB Team may not proceed to commence any construction activity with respect to the Project except as authorized pursuant to an RFC. An RFC may be issued for the entire project or any Construction Phase of the project. SRTA anticipates issuing NTP 3 after GDOT’s issuance of Right-of-Way certification and within five (5) days from DB Team’s satisfaction of the following conditions:

(a) Submittal by DB Team to SRTA and acceptance by GDOT of the Quality Management Plan in accordance with Article 9 of this Agreement and Section 2 of the Technical Provisions;

(b) Submittal by DB Team to SRTA and acceptance by SRTA of DB Team’s Safety Plan of Project;

(c) Submittal by DB Team to SRTA and acceptance by SRTA of DB Team’s Final Plans for the phases of the Project under Section 1.2 of the Technical Provisions;

(d) Submittal by DB Team to SRTA and acceptance by SRTA of DB Team’s proposed Schedule of Values;

(e) Submittal by DB Team to SRTA and acceptance by SRTA of the DB Team's proposed Project Baseline Schedule under Section 2 of the Technical Provisions;

(f) Submittal by DB Team to SRTA and acceptance by SRTA of the DB Team's Maximum Payment Curve under Article 5.3 of the Agreement and Section 2 of the Technical Provisions

(g) Submittal by DB Team to SRTA and acceptance by SRTA of the Traffic Control Plan for the approved Project Phase;

(h) Submittal by DB Team to SRTA and acceptance by SRTA of the Transportation Management Plan for the approved Project Phase;

(i) Submittal by DB Team to SRTA and acceptance by SRTA of the Public Information and Communications Plan (PICP) under Section 3.3.2.1 of the Technical Provisions, if required;

(j) Evidence by DB Team of all required Government Approvals as required under Article 6.2 for the approved Project Phase;

(k) Submittal by DB Team to SRTA and acceptance by SRTA of the Post-Construction Stormwater Report;

(l) Submittal by DB Team to SRTA and acceptance by SRTA of all Standard Utility Agreements, Utility Encroachment Permits, Utility Relocation Plans, and/or Certification of "No-Conflict" for the approved Project Phase, if required; and

(m) Submittal by DB Team to SRTA of qualified Worksite Utility Control Supervisor (WUCS), Worksite Erosion Control Supervisor (WECS), and Worksite Traffic Control Supervisor (WTCS);

**3.3.1.4** Notwithstanding any provision to the contrary in this Article 3.3, DB Team shall not perform, nor be obligated to perform, any portion of the Work prior to issuance of Approval of the Environmental Documents, except for Work authorized under 23 C.F.R. 636.103, Preliminary Work.

**3.3.2** DB Team shall satisfy all conditions prior to issuance of NTP 3. DB Team shall satisfy all conditions to commencement of the Construction Work and commence such Construction Work with diligence and continuity, by the deadlines therefor set forth in Milestone Schedule attached as Exhibit 9, and any adjustments set forth therein, all as the same may be extended pursuant to this Agreement.

**3.3.3** Prior to the start of any Construction Work, the DB Team shall satisfy all conditions set forth in Section 23.2.1 of the Technical Provisions.

#### **Article 4      RESERVED**

## **Article 5 CONTRACT SUM, PAYMENTS, AND PUBLIC FUNDS**

### **5.1 Payment of Contract Sum**

**5.1.1** SRTA shall pay DB Team the Contract Sum for Work properly performed in accordance with the DB Documents and the terms and conditions set forth in GDOT Standard Specifications, Section 109 up to the Annual Cumulative Payment Cap as set forth in Article 5.2. DB Team, in consideration for all Work performed in accordance with the DB Documents, shall be entitled to receive the Contract Sum, which amount is inclusive of all fees, overhead, profit, insurance and bond premiums, labor and material costs, installations, delivery, warehouse and handling charges, duties, taxes and other assessments.

### **5.2 Maximum Annual Cumulative Payment Cap**

#### **5.2.1 Maximum Annual Cumulative Payment Cap Schedule**

All payments, including mobilization but excluding Change Orders, are limited by an Annual Cumulative Payment Cap as set forth in Table 5-1. At no time in the progression of the Work, shall the DB Team's cumulative sum of the estimated work in progress value or the total progress payments received exceed the cumulative total expenditure permitted by the Annual Cumulative Payment Cap shown in Table 5-1.

**TABLE 5-1  
ANNUAL CUMULATIVE PAYMENT CAP SCHEDULE**

| <b><i>Date Funds Become Available</i></b> | <b><i>Annual Funds Available</i></b> | <b><i>Annual Cumulative Payment Cap Amount</i></b> |
|---|--------------------------------------|--|
| [Date of NTP 1]                           | \$21,000,000                         | \$21,000,000                                       |
| July 1, 2018                              | \$58,560,000                         | \$79,560,000                                       |
| July 1, 2019                              | \$35,215,846.19                      | \$114,775,846.19                                   |

In no event, shall DB Team be entitled to (a) payment for any payment activity in excess of the value of the payment activity times the completion percentage of such activity or (b) aggregate payments hereunder in excess of (i) the overall completion percentage for the Project times the Contract Sum or (ii) the Annual Cumulative Payment Cap Amount for the period in which the Payment Request applies, plus amounts allowed by Change Orders.

#### **5.2.2 Reporting Cumulative Progress and Payment**

The DB Team shall prepare and maintain a cost-loaded schedule in accordance with Section 2 of the Technical Provisions to ensure the proposed expenditures remain under the Annual Cumulative Payment Caps (exclusive of payments for Change Orders). The monthly narrative report will include information regarding the actual accumulated expenditures compared against the planned accumulated expenditures through the then-current reporting period, and project the planned level of expenditures for the remaining Work against the funds available within each of the Annual Cumulative Payment Caps.

GDOT may require additional information from the DB Team that it deems necessary or desirable to better determine the then-current and projected status of the DB Team's actual accumulated and planned annual expenditures. In such case, GDOT has no obligation to process the DB Team's progress Payment Requests until it has received the requested information and has a reasonable amount of time, but no earlier than five (5) days, to review and respond to the additional information.

### **5.2.3 GDOT Right to Stop Work**

If at any time in the progression of the Work GDOT becomes aware that the DB Team's cumulative sum of the estimated work in progress value or the total progress Payments Requests received will exceed the accumulative total expenditure permitted by the Annual Cumulative Payment Cap within the current or next reporting period, GDOT shall have the right to stop the Work until such time that the annual funds available as shown in Table 5-1 exceed the amounts requested in the most-recent progress Payment Request. Any such stop Work event will not constitute a Relief Event or Compensation Event under the DB Agreement and in no case shall the DB Team be entitled to compensation, extension of time, or any other form of relief caused by or related to such stoppage of Work. Should any Completion Deadline ultimately be delayed from such Work stoppage, such delay will be subject to the Liquidated Damages provisions in Article 17.4.1 and Exhibit 18 of the Agreement

## **5.3 Maximum Payment Curve**

Payments, including mobilization, but not including payments for Change Orders, are limited by a Maximum Payment Curve, which establishes a cumulative cap on amounts available for progress payments. In other words, at no time shall the DB Team's cumulative total progress payments exceed the cumulative total expenditure permitted by the Maximum Payment Curve.

The DB Team shall submit to GDOT for review and approval a cost-loaded Project Baseline Schedule that establishes the Maximum Payment Curve. Upon approval by GDOT and SRTA, the Maximum Payment Curve shall become a binding term and condition under this Agreement. SRTA may, in its sole discretion, unilaterally increase the Maximum Payment Curve limit for any reporting period(s) and the DB Team may request the Maximum Payment Curve be revised from time to time, subject to GDOT's approval in its sole discretion, through issuance of a no-cost Change Order.

The Maximum Payment Curve shall be subject to the requirements set forth in Section 5.2 and in no case may exceed the Annual Accumulative Payment Cap limits identified in Table 5-1.

## **5.4 SRTA and GDOT Monetary Obligations and Overall Limitation of Liability**

**5.4.1** Notwithstanding anything to the contrary in the DB Documents, in no event shall SRTA's and GDOT's outstanding liability to DB Team under the DB Documents, including liability related to Compensation Events and Compensation Amounts, exceed the amount of compensation that would be payable to DB Team pursuant to a Termination for Convenience under Article 19.1.

**5.4.2** The payment of any moneys owed by SRTA under the DB Documents, including without limitation amounts payable in connection with a termination, upon the occurrence of a SRTA Event of Default, or in any suit for monetary damages alleging breach of this Agreement by SRTA, shall be limited to funds available to SRTA for such payments, including funds received by SRTA from GDOT for such purpose, and other legally available funds that are not derived from other toll projects, or that have not been budgeted, pledged, or encumbered to pay: (i) revenue bonds or (ii) other SRTA obligations (collectively, the "SRTA Payment Funds").

**5.4.3** Without limiting the foregoing and for purposes of clarification, funds, including any interest earned thereon, appropriated for the purposes set forth in O.C.G.A. § 32-10-120 et seq., funds, including any interest earned thereon, derived by SRTA from other toll projects, both present and future, and other funds, including any interest earned thereon, that may now or hereafter be budgeted, pledged or encumbered to the payment of revenue bonds or other obligations of SRTA, including without limitation federal highway funds, shall not, to the extent so budgeted, pledged or encumbered, be available to meet SRTA's obligations under the DB Documents.

**5.4.4** As and to the extent required, SRTA shall, on an annual basis during the Term, and more frequently if needed, request that GDOT obtain and make available to SRTA funds sufficient to enable SRTA to make all payments due to DB Team under the DB Documents during the Term (including, without limitation, (a) the Contract Sum, (b) extraordinary and unscheduled payments which may be due to DB Team, from time to time, hereunder, (c) any other amounts then anticipated to be due to DB Team from SRTA under this Agreement during the following Fiscal Year (and any subsequent periods for which such amounts are then anticipated to be due), and (d) amounts due to DB Team under Article 19 in the event this Agreement is terminated prior to the stated expiration of the Term). In addition to the foregoing, SRTA shall take any and all action required to be taken and legally available to SRTA in order to source the funds necessary to discharge its payment obligations under the DB Documents, including, without limitation, seeking the proper appropriation from the legislature (through GDOT) and issuing bonds or other debt as necessary to source such funds. "Any such action by SRTA under this Article 5.2.3 shall in no way prejudice DB Team's rights and remedies under this Agreement with respect to SRTA's failure to satisfy its payment obligations under the DB Documents.

## **Article 6 PROJECT PLANNING AND ACCEPTANCES; PROJECT ADMINISTRATION, REVIEW AND OVERSIGHT; PUBLIC INFORMATION**

### **6.1 Preliminary Planning and Engineering Activities; Site Conditions**

**6.1.1** DB Team shall perform or cause to be performed all architectural and engineering activities appropriate for design and construction of the Project in accordance with Good Industry Practice and the DB Documents, which may include, subject to the scope of Work set forth in the DB Documents or as required by SRTA by Supplemental Agreement or Directive Letter: (a) Utility Adjustments (b) technical studies and analyses; (c) geotechnical investigations; (d) right-of-way mapping, surveying and appraisals; (e) Subsurface Utility Engineering(SUE) investigations and mapping; (f) Hazardous Materials investigations; and (g) design and construction surveys.

**6.1.2** Except to the extent that DB Team is entitled to a Relief Event and/or a Compensation Event under this Agreement, DB Team shall bear the risk of any incorrect or incomplete review, examination and investigation by it of the Site or the Existing Improvements

and surrounding locations, and of any incorrect or incomplete information resulting from preliminary architectural and engineering activities conducted by DB Team, SRTA, GDOT or any other Person. DB Team acknowledges and agrees that neither SRTA or GDOT make any warranties or representations as to any surveys, data, reports or other information provided by SRTA, GDOT, or other Persons concerning surface conditions and subsurface conditions, including the presence of Utilities, Hazardous Materials, contaminated groundwater, archeological, paleontological and cultural resources, and Threatened or Endangered Species, affecting the Site, the Existing Improvements or surrounding locations. DB Team acknowledges that such information is for DB Team's reference only and has not been verified.

**6.1.3** Except to the extent that DB Team is entitled to a Relief Event and/or a Compensation Event under this Agreement, DB Team shall bear the risk of all conditions occurring on, under or at the Site and the Existing Improvements, including (a) physical conditions of an unusual nature, differing materially from those ordinarily encountered in the area, (b) changes in surface topography, (c) variations in subsurface moisture content, (d) Utility facilities, (e) the discovery at, near or on the Property of any archeological, paleontological or cultural resources, and (f) the discovery at, near or on the Property of any Threatened or Endangered Species.

## **6.2 Governmental Approvals and Third Party Agreements**

**6.2.1** SRTA has caused GDOT to retain responsibility for obtaining all Provided Approvals based on the design schematic contained in the NEPA Approvals. SRTA shall deliver to DB Team true and complete copies of all Provided Approvals. DB Team shall obtain all other Governmental Approvals and, except to the extent the DB Documents expressly provide SRTA or GDOT is responsible therefor, all third party approvals and agreements required in connection with the Project or the Work, including any modifications, renewals and extensions of the Provided Approvals (including those required in connection with a Compensation Event). DB Team shall deliver to SRTA true and complete copies of all new or amended Governmental Approvals and third party approvals and agreements. In no event shall SRTA or GDOT be responsible or liable for any delays in obtaining Provided Approvals to the extent such delays are caused by differences between the schematic contained in the NEPA Approvals and DB Team's Final Design, unless such differences are due to a SRTA Change.

**6.2.2** Prior to submitting to a Governmental Entity any application for a Governmental Approval (or any proposed modification, renewal, extension or waiver of a Governmental Approval or provision thereof), DB Team shall submit the same, together with any supporting environmental studies and analyses, to SRTA (a) for acceptance or (b) for review and comment, as specified in the Technical Provisions in Table 4-2.

**6.2.3** Except as expressly set forth in this Agreement to the contrary, in the event DB Team's design differs from the schematic contained in the approved Environmental Documents upon which the Provided Approvals were based, as among SRTA and DB Team, DB Team shall support necessary actions, and shall bear all risk of delay, resulting from or arising out of any associated change in the Project location and design, including (a) conducting all necessary environmental studies and preparing all necessary Environmental Documents in compliance with applicable Environmental Laws, and (b) obtaining and complying with all necessary new Governmental Approvals (including any modifications, renewals and extensions of the Provided Approvals, and other existing Governmental Approvals). SRTA, GDOT, and FHWA will

independently evaluate all environmental studies and documents and fulfill the other responsibilities assigned to them by 23 CFR Part 771.

**6.2.4** Subject to clauses (h), (i) and (n) of the definition of Compensation Event and clauses (o), (p) and (t) of the definition of Relief Event and except to the extent required under the Technical Requirements, in the event DB Team is unable to obtain necessary Governmental Approvals for any design that differs from the schematics contained in the approved Environmental Documents upon which Provided Approvals were based, DB Team shall be obligated to design and construct the Project according to a design in compliance with the requirements of the Provided Approvals, and no such circumstance shall constitute a Relief Event, Compensation Event or other basis for any Claim.

**6.2.5** At DB Team's request, SRTA shall, or shall cause GDOT to, reasonably assist and cooperate with DB Team in obtaining from Governmental Entities the Governmental Approvals (including any modifications, renewals and extensions of existing Governmental Approvals from Governmental Entities) required to be obtained by DB Team under the DB Documents.

**6.2.5.1** SRTA and DB Team shall work jointly to establish a scope of work and budget for SRTA Recoverable Costs related to the assistance and cooperation SRTA and/or GDOT will provide as contemplated herein, subject to any rights of DB Team in the case of a Compensation Event.

**6.2.5.2** Such costs and expenses shall be subject to the limitations for SRTA Recoverable Costs provided however that, notwithstanding the limitations of subpart (a) in the definition of SRTA Recoverable Costs, such reimbursable amounts shall expressly include costs and expenses incurred to conduct further or supplemental environmental studies as a result of (i) any DB Team Proposed Right of Way, (ii) changes by DB Team including those requiring NEPA re-evaluations and permitting, or (iii) DB Team Release(s) of Hazardous Material.

**6.2.6** DB Team shall comply with all conditions imposed by and undertake all actions required by and all actions necessary to maintain in full force and effect all Governmental Approvals, including performance of all environmental mitigation measures required by the DB Documents or Governmental Approvals, except to the extent that responsibility for performance of such measures is expressly assigned to SRTA or GDOT in the DB Documents.

**6.2.7** In the event that any Governmental Approvals required to be obtained by DB Team must formally be issued in SRTA's or GDOT's name, DB Team shall undertake necessary efforts to obtain such approvals subject to SRTA's or GDOT's reasonable cooperation with DB Team, as the case may be, at DB Team's expense (except in connection with a Compensation Event), in accordance with Article 6.2.5, including execution and delivery of appropriate applications and other documentation in form accepted by SRTA. Refer to Section 4.2 of the Technical Provisions for more specific provisions on applications in GDOT's name for Environmental Approvals.

**6.2.8** In the event that SRTA, GDOT or FHWA must act as the lead agency and directly coordinate with a Governmental Entity in connection with obtaining Governmental Approvals which are the responsibility of DB Team, DB Team shall provide all necessary support to facilitate the approval, mitigation or compliance process. Such support may include conducting necessary

field investigations, surveys, and preparation of any required reports, documents and applications.

**6.2.9** DB Team shall be responsible for compliance with all applicable Laws in relation to Project Specific Locations and Additional Properties for obtaining any Environmental Approval or other Governmental Approval required in connection with Project Specific Locations.

**6.2.10** DB Team shall not enter into any agreement with any Governmental Entity, Utility Owner, railroad, property owner or other third party having regulatory jurisdiction over any aspect of the Project or Work or having any property interest affected by the Project or the Work that in any way purports to obligate SRTA or GDOT, or the State or an agency or department thereof, or states or implies that SRTA or GDOT has an obligation, to the third party to carry out any installation, design, construction, maintenance, repair, operation, control, supervision, regulation or other activity after the end of the Term, unless SRTA otherwise accepts in writing in its sole discretion. DB Team has no power or authority to enter into any such agreement with a third party in the name or on behalf of SRTA or GDOT.

### **6.3 Review and Oversight**

#### **6.3.1 Submittal, Review and Acceptance Terms and Procedures**

**6.3.1.1** This Article 6.3 sets forth uniform terms and procedures that shall govern all Submittals pursuant to the DB Documents and component plans thereunder. In the event of any irreconcilable conflict between the provisions of this Article 6.3 and any other provisions of the DB Documents and component plans thereunder concerning submission, review and acceptance procedures, this Article 6.3 shall exclusively govern and control, except to the extent that the conflicting provision expressly states that it supersedes this Article 6.3.

#### **6.3.2 Time Periods**

**6.3.2.1** Except as expressly set forth in Section 23 of the Technical Provisions or as provided below, whenever SRTA or GDOT is entitled to review and comment or accept a Submittal, GDOT shall promptly respond and/or act upon such Submittal within thirty (30) days from the date it receives an accurate and complete Submittal, together with a completed transmittal form in form to be mutually agreed upon and all necessary information and documentation concerning the subject matter included. Any period of review by SRTA in excess of thirty (30) days, except where Section 23 of the Technical Provisions provides for a longer time period, may be deemed a SRTA Caused-Delay and give rise to Relief Event, subject to the provisions and satisfying all DB Document requirements for Relief Events. The time periods set forth in the DB Documents for SRTA's review and acceptance of Submittals, as and to the extent required shall apply to and restart with all re-Submittals which DB Team may be required to provide.

**6.3.2.2** Reserved.

**6.3.2.3** The time periods set forth herein with respect to SRTA's review and acceptance or comment on Submittals shall be subject to adjustment as provided in Section 23 of the Technical Provisions for multiple concurrent Submittals.

**6.3.2.4** All time periods for SRTA to act upon Submittals shall be extended by the period of any delay caused by any Relief Event impacting same, including as set forth in

clauses (a), (b), (c), (m) and (n) of the definition of Relief Event or otherwise as and to the extent of any delay of DB Team or any DB Team-Related Entity.

**6.3.2.5** During any time that SRTA is entitled under Article 17.3.8 to increase the level of its auditing, monitoring, inspection, sampling, measuring, testing and oversight of the Project, the Utility Adjustments and DB Team's compliance with its obligations under the DB Documents, the applicable period for SRTA to act on any Submittals received during such time and not related to curing the DB Team Default(s) that instigated the Article 17.3.8 action shall automatically be extended by fourteen (14) days.

**6.3.2.6** SRTA shall endeavor to reasonably accommodate a written request from DB Team for expedited action on a specific Submittal, within the practical limitations on availability of personnel appropriate for acting on the types of Submittal in question; provided DB Team sets forth in its request specific, abnormal circumstances demonstrating the need for expedited action. This provision shall not apply, however, during any time described in Article 6.3.2.4 or 6.3.2.5.

### **6.3.3 SRTA Discretionary Acceptances**

**6.3.3.1** If the Submittal is one where the DB Documents indicate approval or consent or acceptance is required from SRTA in its sole discretion, absolute discretion, or good faith discretion, then SRTA's lack of approval, determination, decision or other action within the applicable time period under Article 6.3.2 shall be deemed disapproval.

**6.3.3.2** If the approval is subject to the good faith discretion of SRTA, then its decision shall be binding unless it is finally determined by clear and convincing evidence that such decision was arbitrary or capricious. For avoidance of doubt, if the decision is determined to be arbitrary and capricious and causes delay, it will constitute and be treated as a SRTA-Caused Delay.

### **6.3.4 Other SRTA Acceptances**

**6.3.4.1** Whenever the DB Documents indicate that a Submittal or other matter is subject to SRTA's acceptance or consent and no particular standard therefor is stated, then the standard shall be reasonableness.

**6.3.4.2** If the reasonableness standard applies to SRTA's or GDOT's right of acceptance or consent to a Submittal, and SRTA delivers no acceptance, consent, determination, decision or other action within the applicable time period under Article 6.3.2, then DB Team may deliver to SRTA a written notice stating the date within which SRTA was to have decided or acted and that if SRTA does not decide or act within five (5) Business Days after receipt of the notice, delay from and after that date (five (5) Business Days after receipt of the notice) may constitute SRTA-Caused Delay for which DB Team may be entitled to issue a Relief Event Notice and Compensation Event Notice under Article 13.1 and Article 13.2.

### **6.3.5 SRTA Review and Comment**

**6.3.5.1** Whenever the DB Documents indicate that a Submittal or other matter is subject to SRTA's or GDOT's review, comment, review and comment, disapproval or similar action not entailing a prior approval and SRTA delivers no comments, exceptions, objections, rejections or disapprovals within the applicable time period under Article 6.3.2, then DB Team

may proceed thereafter at its election and risk, without prejudice to GDOT's rights to later object, reject or disapprove.

**6.3.5.2** No such failure or delay by SRTA in delivering comments, exceptions, objections, rejections or disapprovals within the applicable time period under Article 6.3.2 shall constitute a SRTA-Caused Delay, SRTA Change, Relief Event, Compensation Event or other basis for any Claim; provided, however that if SRTA delivers any objections, rejections or disapprovals three (3) months or later after the applicable time period under Article 6.3.2, such actions may constitute a SRTA-Caused Delay or a SRTA Change.

**6.3.5.3** When used in the DB Documents, the phrase "completion of the review and comment process" or similar terminology means either (a) SRTA has reviewed, provided comments, exceptions, objections, rejections or disapprovals, and all the same have been resolved, or (b) the applicable time period has passed without SRTA providing any comments, exceptions, objections, rejections or disapprovals.

### **6.3.6 Submittals Not Subject to Prior Review, Comment or Acceptance**

Whenever the DB Documents indicate that DB Team is to deliver a Submittal to SRTA but express no requirement for SRTA review, comment, disapproval, prior acceptance or other SRTA action, then DB Team is under no obligation to provide SRTA any period of time to review the Submittal or obtain acceptance of it before proceeding with further Work, and SRTA shall have the right, but is not obligated, to at any time review, comment on, take exception to, object to, reject or disapprove the Submittal in accordance with Article 6.3.7.1. No failure or delay by SRTA in delivering comments, exceptions, objections, rejections or disapprovals with respect to any Submittal as set forth in Article 6.3 shall constitute a Relief Event, Compensation Event or other basis for any Claim.

### **6.3.7 Resolution of SRTA Comments and Objections**

**6.3.7.1** If the Submittal is one not governed by Article 6.3.3, SRTA's exception, objection, rejection or disapproval shall be deemed reasonable, valid and binding if based on any of the following grounds:

(a) The Submittal or subject provision thereof fails to comply with any applicable covenant, condition, requirement, term or provision of the DB Documents or Management Plans thereunder;

(b) The Submittal or subject provision thereof is not to a standard equal to or better than the requirements of Good Industry Practice;

(c) DB Team has not provided all content or information required in respect of the Submittal or subject provisions thereof, provided that SRTA assumes no duty, obligation or liability regarding completeness or correctness of any Submittal, including a Submittal that is to be delivered to a Governmental Entity as a proposed Governmental Approval, or in order to obtain, modify, amend, supplement, renew, extend, waive or carry out a Governmental Approval;

(d) Adoption of the Submittal or subject provision thereof, or of any proposed course of action thereunder, would result in a conflict with or violation of any Law or Governmental Approval; or

(e) In the case of a Submittal that is to be delivered to a Governmental Entity as a proposed Governmental Approval, or in order to obtain, modify, amend, supplement, renew, extend, waive or carry out a Governmental Approval, it proposes commitments, requirements, actions, terms or conditions that are not arrangements that SRTA offers or accepts for addressing similar circumstances affecting its own projects.

**6.3.7.2** DB Team shall timely and promptly respond to all of SRTA's comments and objections to a Submittal and, except as provided below, make modifications to the Submittal as necessary to fully reflect and resolve all such comments and objections, in accordance with the review processes set forth in this Article 6.3. DB Team acknowledges that SRTA may provide comments and objections which reflect concerns regarding interpretation or preferences of the commenter or which otherwise do not directly relate to grounds set forth in Article 6.3.7.1. DB Team agrees to undertake reasonable efforts to accommodate or otherwise resolve any such comments or objections through the review processes described in this Article 6.3. However, if the Submittal is not governed by Article 6.3.3, the foregoing shall in no way be deemed to obligate DB Team to incorporate any comments or resolve objections that are not on any of the grounds set forth in Article 6.3.7.1 and would result in a delay to a Critical Path on the Project Schedule, or an increase in DB Team's costs, except pursuant to a SRTA Change as described in Article 14. If, however, DB Team does not accommodate or otherwise resolve any comment or objection, DB Team shall deliver to SRTA within a reasonable time period, not to exceed fourteen (14) days after receipt of SRTA's comments or objections, a written explanation why modifications based on such comment or objection are not required. The explanation shall include the facts, analyses and reasons that support the conclusion.

**6.3.7.3** The foregoing shall in no way be deemed to obligate DB Team to incorporate any comments or resolve objections that would render the Submittal erroneous, defective or less than Good Industry Practice, except pursuant to a SRTA Change.

**6.3.7.4** If DB Team fails to notify SRTA within such time period, SRTA may deliver to DB Team a written notice stating the date by which DB Team was to have addressed SRTA's comments and that if DB Team does not address those comments within five (5) Business Days after receipt of this notice, then that failure shall constitute DB Team's agreement to make all changes necessary to accommodate and resolve the comment or objection and full acceptance of all responsibility for such changes without right to a Relief Event, Compensation Event or other Claim.

**6.3.7.5** After SRTA receives DB Team's explanation as to why the modifications are not required as provided in Article 6.3.7.2, Article 6.3.7.3 and Article 6.3.7.4, the Parties shall attempt in good faith to resolve the Dispute. If they are unable to resolve the Dispute, it shall be resolved according to Article 17 except (a) as provided otherwise in Article 6.3.3, and (b) if SRTA elects to issue a Directive Letter pursuant to Article 14.3 with respect to the disputed matter, the DB Team shall proceed in accordance with SRTA's directive while retaining any Claim as to the disputed matter.

### **6.3.8 Limitations on DB Team's Right to Rely**

**6.3.8.1** No review, comment, objection, rejection, acceptance, disapproval, acceptance, certification (including certificates of Substantial Completion and Final Acceptance), concurrence, monitoring, testing, inspection, spot checking, auditing or other oversight by or on behalf of SRTA or GDOT or their representatives or agents, and no lack thereof by SRTA or

GDOT, or their representatives or agents, shall constitute acceptance of materials or Work or waiver of any legal or equitable right under the DB Documents, at Law, or in equity. SRTA shall be entitled to remedies for Nonconforming Work and to identify additional Work which must be done to bring the Work and Project into compliance with requirements of the DB Documents, regardless of whether previous review, comment, objection, rejection, acceptance, disapproval, acceptance, certification, concurrence, monitoring, testing, inspection, spot checking, auditing or other oversight were conducted or given by SRTA or GDOT, or their representatives or agents. Regardless of any such activity or failure to conduct any such activity by SRTA or GDOT, or their representatives or agents, DB Team at all times shall have an independent duty and obligation to fulfill the requirements of the DB Documents. DB Team agrees and acknowledges that any such activity or failure to conduct any such activity by SRTA or GDOT, or their representatives or agents:

- (a) is solely for the benefit and protection of SRTA and GDOT;
- (b) does not relieve DB Team of its responsibility for the selection and the competent performance of all DB Team-Related Entities;
- (c) does not create or impose upon SRTA or GDOT any duty or obligation toward DB Team to cause it to fulfill the requirements of the DB Documents;
- (d) shall not be deemed or construed as any kind of warranty, express or implied, by SRTA or GDOT;
- (e) may not be relied upon by DB Team or used as evidence in determining whether DB Team has fulfilled the requirements of the DB Documents; and
- (f) may not be asserted by DB Team against SRTA or GDOT as a defense, legal or equitable, to, or as a waiver of or relief from, DB Team's obligation to fulfill the requirements of the DB Documents.
- (g) shall not be deemed or construed as any assumption of risk by SRTA or GDOT as to the quality of Work or materials.

**6.3.8.2** DB Team shall not be relieved or entitled to reduction of its obligations to perform the Work in accordance with the DB Documents, or any of its other liabilities and obligations, including its indemnity obligations, as the result of any activity identified in Article 6.3.8.1 or failure to conduct any such activity by SRTA. Such activity by SRTA shall not relieve DB Team from liability for, and responsibility to cure and correct Nonconforming Work or DB Team Defaults.

**6.3.8.3** To the maximum extent permitted by Law, DB Team hereby releases and discharges SRTA and GDOT from any and all duty and obligation to cause DB Team's Work or the Project to satisfy the standards and requirements of the DB Documents. GDOT is an intended third party beneficiary of this Section 6.3.8.

**6.3.8.4** Notwithstanding the provisions of Article 6.3.8.1, Article 6.3.8.2 and Article 6.3.8.3:

- (a) DB Team shall be entitled to rely on written approvals, acceptances, lack of responses from SRTA or GDOT (i) for the limited purpose of establishing that the approval,

acceptance or lack of response occurred or (ii) that are within its sole discretion, but only to the extent that DB Team is prejudiced by a subsequent decision of such party to rescind such approval or acceptance;

(b) Reserved

(c) DB Team shall be entitled to rely on the certificates of Substantial Completion and Final Acceptance from SRTA for the limited purpose of establishing that Substantial Completion and Final Acceptance, as applicable, have occurred, and the respective dates thereof;

(d) SRTA is not relieved from any liability arising out of a knowing and intentional material misrepresentation under any written statement SRTA delivers to DB Team; and

(e) SRTA is not relieved from performance of its express responsibilities under the DB Documents in accordance with all standards applicable thereto.

### **6.3.9 Inspection and Testing; Limitations**

**6.3.9.1** At all times during the term of this Agreement, SRTA shall have the right to conduct the monitoring, reviewing, inspection, testing, reporting, auditing and other oversight functions set forth in the DB Documents, including without limitation:

(a) monitoring and auditing DB Team and its processes, books and records, and deliverables to determine compliance with requirements of the DB Documents and the accepted Management Plans, including audit review of Design Documents, Plans, Construction Documents and other Submittals;

(b) conducting field monitoring and inspections on an audit basis as indicated in the DB Documents, including in connection with SRTA's certifications of Substantial Completion and Final Acceptance;

(c) develop quality reports, regular audit reports, reports on Defects, other reports, and findings, opinions, evaluations, comments, objections and recommendations, all as more particularly set forth in the DB Documents;

(d) reviewing and commenting on all Submittals for which SRTA review and comment or acceptance is required under the DB Documents, unless expressly provided otherwise in the DB Documents, or unless waived in writing by the Parties for a specific Submittal or type of Submittal;

(e) attending and witnessing DB Team's tests and inspections;

(f) auditing the books and records of Key Contractors to confirm compliance with the DB Documents and applicable Law;

(g) investigating, analyzing and reporting on Safety Compliance and performance of Safety Compliance Orders; and

(h) reviewing, commenting on and giving recommendations, objections or disapprovals regarding the Project Payment Request and revisions thereto, and processing such Project Payment Request.

**6.3.9.2** SRTA shall have the right to attend and witness any tests and verifications to be conducted pursuant to the Technical Provisions and applicable Management Plans. DB Team shall provide to SRTA all applicable test results and reports (which may be provided in electronic format in accordance with the Technical Provisions) within ten (10) days after DB Team receives them.

#### **6.3.10 Oversight by GDOT for FHWA and Federal Compliance**

**6.3.10.1** In addition to SRTA's rights of oversight, inspection, monitoring and auditing of DB Team's Work, GDOT shall independently have the right at all times to monitor, inspect, sample, measure, attend, observe or conduct tests and investigations, and conduct any other oversight respecting any part or aspect of the Project or the Work, to the extent necessary or advisable (a) to comply with FHWA, U.S. Army Corps of Engineers or other applicable federal agency requirements, and (b) to verify on an audit basis DB Team's compliance with the DB Documents and Management Plans as provided in Article 22.2.

**6.3.10.2** DB Team acknowledges and agrees that SRTA and GDOT will have the right to audit, monitor and inspect DB Team and its Contractors compliance with Good Industry Practice and its responsibilities and obligations under the DB Documents.

**6.3.10.3** GDOT will not conduct formal prior reviews of Design Documents except to the extent necessary or advisable to comply with FHWA, U.S. Army Corps of Engineers or other applicable federal agency requirements, provided that the aforementioned shall not limit SRTA's rights pursuant to this Agreement. GDOT and SRTA reserves the right to conduct "over-the-shoulder" reviews of Design Documents or other Submittals as they may deem necessary or appropriate, including pursuant to Article 17.3.8, provided that they shall not have any obligation to conduct such reviews nor assume any responsibility for DB Team's Work, regardless of whether or not electing to perform or performing any such reviews.

**6.3.10.4** Nothing in the DB Documents shall preclude, and DB Team shall not interfere with, any review, audit or oversight of Submittals, Work or books and records that the FHWA may desire to conduct.

#### **6.3.11 Rights of Cooperation and Access; Increased Oversight**

**6.3.11.1** DB Team shall coordinate and cooperate, and require its Contractors to coordinate and cooperate, with SRTA, GDOT, and any such parties as provided in Article 6.3 to facilitate the full, efficient, effective and timely performance of all such monitoring, inspection, sampling, measuring, testing, reporting, auditing, and other oversight functions. DB Team shall cause its representatives to be available at all reasonable times for consultation with SRTA and GDOT and such other parties as required.

**6.3.11.2** Without limiting the foregoing and subject to SRTA and GDOT complying with DB Team's reasonable safety requirements, DB Team shall afford SRTA and GDOT (a) safe and unrestricted access to the Project at all times, (b) safe access during normal business hours to DB Team's Project offices and operations buildings, (c) safe access during normal business hours to the Project Specific Locations and (d) unrestricted access to data

respecting the Project design, construction, operations and maintenance, and the Utility Adjustment Work. Without limiting the foregoing, DB Team shall deliver to SRTA and GDOT upon request accurate and complete books, records, data and information regarding Work, the Project and the Utility Adjustment Work, in the format required by the Technical Provisions.

**6.3.11.3** SRTA shall have the right to increase the type and level of their oversight as provided in Article 6.3

**6.3.12 Limits of Responsibility For Oversight, Review, Recommendations, Inspection and Acts by GDOT and SRTA**

**6.3.12.1** Although SRTA, and its representatives and agents may consult with DB Team during the course of the Work, no such party shall have control over, charge of, or responsibility for the any of the Work, including without limitation, any design or engineering thereof, or means, methods, techniques, sequences or procedures in connection therewith, nor shall any such party be responsible for DB Team's failure to perform the Work in accordance with the requirements of the DB Documents. Any such review is not for the purpose of determining the accuracy and completeness of information or work product, all of which are DB Team's responsibility. Any review, recommendation, acceptance, inspection, response, act or omission with respect to any Submittals, or with respect to the Project, the Work (whether Construction Work or Design Work), or the Construction Documents shall be pursuant to, and solely in furtherance of the inspection powers as set forth in O.C.G.A. § 50-21-24(8).

**6.3.12.2** DB Team shall, at all times and notwithstanding any such acts or omissions by SRTA or GDOT as provided in this Article 6 or elsewhere in this Agreement, be fully responsible for all architectural design and engineering required for the Project. DB Team expressly waives and releases (a) all claims for right of contribution against either SRTA, GDOT, or their respective representatives and agents, other than for such parties' sole negligence, arising from or related to any third party claims, including without limitation for personal injury, death, or property damage, and (b) all claims and defenses by DB Team against either SRTA, GDOT, or their respective representatives and agents in derogation of the limitations of this Article 6, including this Article 6.3.12, and/or that any or all of such parties otherwise have, or by their acts or omissions, assumed any responsibility for, or related to, the design or construction of the Project, or any means, methods, or techniques in respect thereof. DB Team hereby further expressly waives any claim or defense the basis of which is to assert that either SRTA or GDOT may not delegate the responsibility for any Element of the design and construction of the Project involving public roadways, signs, or traffic controls to DB Team as provided in this Agreement.

**6.4 Community Outreach and Public Information**

DB Team shall provide on-going information to the public concerning the development of the Project, in accordance with the Public Information and Communications Plan prepared by DB Team pursuant to Section 3 of the Technical Provisions, if applicable.

**Article 7 DEVELOPMENT OF THE PROJECT**

**7.1 General Obligations of DB Team**

**7.1.1** DB Team, in addition to performing all other requirements of the DB Documents, shall:

**7.1.1.1** Furnish all design, engineering and other services, provide construction management and all work, including all materials, equipment, labor, and installations, and undertake all efforts necessary or appropriate (excluding only those materials, services and efforts which the DB Documents expressly specify will be undertaken by SRTA or other Persons) to construct the Project and maintain it during construction, so as to achieve Substantial Completion and Final Acceptance by the applicable Milestone Schedule Deadlines;

**7.1.1.2** At all times provide a Project Manager approved by SRTA who (a) will have full responsibility for the prosecution of the Work, including Design Work and Construction Work, (b) will act as agent and be a single point of contact in all matters on behalf of DB Team, (c) will be present (or his/her designee approved by SRTA will be present) at the Site at all times that Design Work or Construction Work is performed, and (d) will be available to respond to SRTA;

**7.1.1.3** Comply with, and require that all Contractors comply with, all requirements of all applicable Laws;

**7.1.1.4** Cooperate with SRTA, GDOT, and Governmental Entities with jurisdiction in all matters relating to the applicable portions of the Work, including Design Work and Construction Work for the Project, including their review, inspection and oversight of the design and construction; and

**7.1.1.5** Use commercially reasonable efforts to mitigate delay to design and construction of the Project and mitigate damages due to delay in all circumstances, to the extent possible, including by re-sequencing, reallocating, or redeploying DB Team's and its Contractors' forces to other work, as appropriate.

## **7.2 Performance, Design and Construction Standards**

**7.2.1** DB Team shall furnish all aspects of the Design Work and all Design Documents, and shall construct the Project and perform the Construction Work as designed, free from Defects, and in accordance with (a) Good Industry Practice, (b) the requirements, terms and conditions set forth in the DB Documents, (c) the Project Schedule, (d) all Laws, (e) the requirements, terms and conditions set forth in all Governmental Approvals, and (f) the requirements of the accepted Quality Management Plan or to be prepared thereunder, in each case taking into account the Existing Right of Way, Required Right of Way, and any Additional Property limits and other constraints affecting the Project and the Property.

**7.2.2** Reserved.

**7.2.3** DB Team acknowledges that prior to the Effective Date it had the opportunity to identify any provisions of the Technical Provisions or Technical Documents that are erroneous or create a potentially unsafe condition, and the opportunity and duty to notify SRTA in writing of such fact and of the changes to the provision that DB Team believed were the minimum necessary to render it correct and safe. If it is reasonable or necessary to adopt changes to the Technical Provisions or Technical Documents after the Effective Date to make the provisions correct and safe, such changes shall not be grounds for a Relief Event or Compensation Event unless (a) DB Team neither knew nor had reason to know prior to the Effective Date that the provision was erroneous or created a potentially unsafe condition or (b) DB Team knew of and reported to SRTA the erroneous or potentially unsafe provision prior to the Effective Date and SRTA did not adopt reasonable and necessary changes. Except for a circumstance as set forth

under (b) herein, if DB Team commences or continues any Design Work or Construction Work affected by such a change after the need for the change was discovered or suspected, or should have been discovered or suspected through the exercise of reasonable care, DB Team shall bear any additional costs associated with redoing the Work already performed. Inconsistent or conflicting provisions of the DB Documents shall not be treated as erroneous provisions under this Article 7.2.3, but instead shall be governed by Article 1.2.

**7.2.4** References in the Technical Provisions or Technical Documents to manuals or other publications governing the Design Work or Construction Work prior to the Substantial Completion Date shall mean the most recent editions in effect at the date of the RFP advertisement, unless expressly provided otherwise. Any changes to the Technical Provisions and Technical Documents, including Safety Standards, respecting Design Work or Construction Work prior to the Substantial Completion Date shall be subject to the Supplemental Agreement process for a SRTA Change in accordance with Article 14. Safety Compliance changes shall be in accordance with Article 12.1.

**7.2.5** The Parties anticipate that from time to time after the Effective Date, SRTA or GDOT will adopt, through revisions to existing manuals and publications or new manuals and publications, changed, added or replacement standards, criteria, requirements, conditions, procedures, specifications and other provisions, including Safety Standards, relating to Design Work and Construction Work. SRTA shall have the right to add such changed, added or replacement standards, criteria, requirements, conditions, procedures, specifications and other provisions, including Safety Standards, to Volume 3 by notice to DB Team, whereupon they shall constitute amendments, and become part, of the Technical Documents. If such changed, added or replacement Technical Documents or Safety Standards encompass matters that are addressed in the Technical Provisions or Technical Documents as of the Effective Date, they may, upon inclusion in Volume 3, replace and supersede inconsistent provisions of the Technical Provisions and Technical Documents to the extent designated by SRTA in its sole discretion. SRTA will identify the superseded provisions in its notice to DB Team. Notwithstanding the foregoing, in the absence of a SRTA Change and except as provided otherwise in Article 7.5.3 with respect to Adjustment Standards, if SRTA or GDOT adopts the changed, added or replacement standards, criteria, requirements, conditions, procedures, specifications and other provisions, including changed, added or replacement Safety Standards, prior to the Final Acceptance Date, DB Team shall not be obligated to (but may) incorporate the same into its design and construction of the Project prior to the Final Acceptance Date.

### **7.3 Design Implementation and Submittals**

**7.3.1** DB Team, through the appropriately qualified and licensed design professionals identified in DB Team's Key Personnel as identified in Exhibit 2 and in accordance with Section 2 of the Technical Provisions, shall prepare designs, Plans and specifications in accordance with the DB Documents. DB Team shall cause the Engineer of Record for the Project to sign and seal all Released for Construction Documents, any revisions to the Released for Construction Documents, all design changes, all Shop Drawings; and for conformance, the As-Built.

**7.3.2** DB Team shall deliver to SRTA accurate and complete duplicates of all Interim Design, and Preliminary and Final Plans and Construction Documents within the time and in the form required by the Technical Provisions.

**7.3.3** The Engineer of Record shall initiate or sign-off on all requests for information prior to their being submitted to GDOT.

**7.4 Reserved.**

**7.5 Utility Adjustments**

**7.5.1 DB Team's Responsibility**

**7.5.1.1** DB Team is responsible for causing, in accordance with the Project Schedule, all Utility Adjustments necessary to accommodate construction, operation, maintenance and/or use of the Project. DB Team shall coordinate, monitor, and otherwise undertake the necessary efforts to cause Utility Owners performing Utility Adjustment Work to perform such work timely, in coordination with the Work, and in compliance with the standards of design and construction and other applicable requirements specified in the DB Documents.

**7.5.1.2** In addition to GDOT's Project administration, GDOT shall independently have the right at all times to approve Utility Adjustments as provided herein. DB Team shall coordinate and be required to procure GDOT approval as required.

**7.5.1.3** Regardless of the arrangements made with the Utility Owners, the DB Team shall continue to be the responsible party to SRTA for timely performance of all Utility Adjustment Work so that upon completion of the Work, all Utilities that might impact the Project or be impacted by it (whether located within or outside the Construction Maintenance Limits) are compatible with the Project. SRTA shall cause GDOT to provide to DB Team the benefit of any provisions in recorded utility or other easements affecting the Project which require the easement holders to relocate at their own expense (unless specified otherwise in the Technical Provisions or a Utility Agreement), subject, however, to any provisions of applicable Law affecting the easement holder's obligations for Utility Adjustments.

**7.5.2 Standard Utility Agreements**

**7.5.2.1** The DB Team will be responsible for completion of all required Standard Utility Agreements. The DB Team will work with the State Utilities Preconstruction Engineer, or assigned designee, to acquire the appropriate Agreement template and coordinate the completion of all required Standard Utility Agreements with Utility Owners. Upon completion of the Standard Utility Agreement with the Utility Owner, the signed agreement should be forwarded to the District Utilities Engineer for review and acceptance. Upon the acceptance by the District, the Standard Utility Agreement shall be forwarded to the State Utilities Preconstruction Engineer for processing and final acceptance. As described in the GDOT Utility Accommodation Policy and Standards Manual ("UAM"), Chapter 4.2.F Agreements cover all requirements for Standard Utility Agreements.

**7.5.3 Requirements**

Each Utility Adjustment (whether performed by DB Team, Sub-Contractor or by the Utility Owner) shall comply with the Adjustment Standards in effect as of the date of advertisement of the contract, together with any subsequent amendments and additions to those standards that (a) are necessary to conform to applicable Law, or (b) are adopted by the Utility Owner and affect the Utility Adjustment pursuant to the applicable Standard Utility Agreement(s). In addition, all

Utility Adjustment Work shall comply with all applicable Laws, the applicable Standard Utility Agreement(s), and all other requirements specified in Section 6 of the Technical Provisions.

#### **7.5.4 Failure of Utility Owners to Cooperate/Escalation**

**7.5.4.1** DB Team shall use diligent efforts to obtain the cooperation of each Utility Owner as necessary for Utility Adjustments. It shall be the DB Team's responsibility to coordinate and track each utilities progress in relation to the Utility Work Plan or Revised Utility Work Plan previously accepted by the Department. Once the DB Team has determined that the Utilities work progress is at least 20% behind the accepted Utility Work Plan; the DB Team will notify the Utility Owner, and the Department of such apparent delay through written correspondence. Such written correspondence shall detail the delay in question and request the Utility to submit a proposal on how the Utility Owner plans to rectify such delay and maintain the project's schedule prescribed by the previously accepted Utility Work Plan. The Utility will respond to this letter within ten (10) Business Days. The response shall include a proposal to cure the delay identified by the DB Team. In some cases, the complexity of the project may require that a utility coordination meeting be held to address the issues identified by the DB Team. If the Utility determines that this is the case, then the Utilities response letter shall include a request to hold a utility coordination meeting with the DB Team, the Utility Engineer and the Construction Engineer for utility delay resolution. If the utility delay cannot be resolved through the coordination efforts described above after twenty (20) Business Days from the date provided in the DB Team's original written correspondence; the said Dispute shall escalate to the State Construction Engineer for further consideration. If additional escalation is required, please follow escalation procedures as outlined in the UAM, Chapter 672-19 of the Rules, and O.C.G.A. § 32-6-171.

#### **7.5.5 Utility Permits (GUPS)**

**7.5.5.1** It is anticipated that during the design and construction phases of the Work, from time to time Utility Owners will apply for utility permits to install new Utilities that would cross or longitudinally occupy the Property, or to modify, upgrade, repair, relocate or expand existing Utilities within the Property for reasons other than accommodation of the Project.

**7.5.5.2** As specified in Section 7.5.5.1, for all such utility permit applications pending as of or submitted after the Effective Date, DB Team shall furnish the most recent Project design information and/or as-built Plans, as applicable, to the applicants, and shall assist each applicant with information regarding the location of other proposed and existing Utilities. DB Team shall keep records of its costs related to new Utilities separate from other Project Costs.

#### **7.5.6 Unexpected Utility Adjustments**

**7.5.6.1** Within one hundred twenty (120) days after the initial NTP 2, DB Team shall conduct an investigation for any unidentified Utility. If DB Team finds an unidentified Utility during the one hundred twenty (120) day time frame, DB Team may be entitled to a Compensation Event or a Relief Event. If DB Team finds an unidentified Utility after the one hundred twenty (120) day time frame, DB Team shall not be entitled to a Compensation Event or a Relief Event. If an Utility is shown on the SUE Plans and not to be impacted by DB Team's Final Design, but is later identified by DB Team as needing to be relocated, DB Team shall not be entitled to a Compensation Event or a Relief Event. Notwithstanding the foregoing, DB Team shall not be

entitled to a Compensation Event or a Relief Event for any Utility whose location, size and dimensions were reasonably accurate and shown on the SUE Plans.

#### **7.5.7 Early Adjustments**

**7.5.7.1** If any Adjustments are designated as Early Adjustments in Section 6 of the Technical Provisions, such Adjustments are anticipated to be completed by the Utility Owner prior to the deadline therefore set forth in the Technical Provisions. DB Team's obligation to provide Protection in Place for Utilities includes any Early Adjustments, whether or not timely completed. DB Team shall coordinate with SRTA, GDOT, and the Utility Owner as may be necessary for orderly completion of any Early Adjustments, and DB Team shall conduct its Work without interfering with or hindering the progress or completion of any Early Adjustments.

### **7.6 Conditions to Commencement of Construction Work**

#### **7.6.1 Construction Work Generally**

Except to the extent expressly permitted in writing by SRTA, DB Team shall not commence or permit or suffer commencement of construction of the Project, or applicable portion thereof, until SRTA issues NTP 3 and all of the conditions of Article 3.3.1.3 have been met.

#### **7.6.2 Utility Adjustments**

DB Team shall not commence or permit or suffer commencement of construction of a Utility Adjustment included in the Construction Work until SRTA issues NTP 3, and the requirements of Article 7.5 have been met.

### **7.7 Substantial Completion, Punch List, Final Acceptance; Early Opening of Portions of the Project**

#### **7.7.1 Substantial Completion**

**7.7.1.1** SRTA will issue a written certificate of Substantial Completion at such time as Substantial Completion occurs which shall be subject to the terms and conditions of this Article 7.7.1.

**7.7.1.2** Substantial Completion shall occur upon satisfactory completion of the requirements of GDOT Standard Specification 108.07.G.

**7.7.1.3** All comments from EPD on the Post-Construction Stormwater Report have been addressed by the DB Team, and the EPDs 90 day Post-Construction Stormwater Report disapproval period has expired.

**7.7.1.4** DB Team shall provide SRTA and GDOT with not less than twenty (20) days prior written notification of the date DB Team determines it will achieve Substantial Completion. During such notice period, DB Team, SRTA, and GDOT shall meet and confer and exchange information on a regular cooperative basis with the goal being SRTA's orderly, timely inspection and review of the Project and the applicable Final Plans and Construction Documents, and SRTA's issuance of a written certificate of Substantial Completion.

**7.7.1.5** During the period specified in Article 7.7.1.4, GDOT shall conduct an inspection of the Project and its components, a review of the applicable Final Plans and Construction Documents and such other investigation as may be necessary to evaluate whether Substantial Completion is achieved. GDOT shall deliver a written report of findings and recommendations to SRTA and the DB Team following such inspection, review and investigation and within five (5) days after the end of the period specified in Article 7.7.1.4. SRTA shall then either (a) issue the written certificate of Substantial Completion or (b) notify DB Team in writing setting forth, as applicable, why the Project has not reached Substantial Completion. If SRTA and DB Team cannot agree that the Substantial Completion has been completed by the Substantial Completion Date defined in Exhibit 9, such Dispute shall be resolved according to Article 17.

### **7.7.2 Punch List**

**7.7.2.1** SRTA and GDOT will prepare and the DB Team shall maintain the Punch List. Each participant shall have the right to add items to the Punch List and none shall remove any item added by any other without such other's express permission. If DB Team objects to the addition of an item by SRTA and GDOT, the item shall be noted as included under protest, and if the Parties thereafter are unable to reconcile the protest, the Dispute shall be resolved according to Article 17. DB Team shall deliver to SRTA and GDOT a true and complete copy of the Punch List, and each modification thereto, as soon as it is prepared.

**7.7.2.2** DB Team shall immediately commence work on the Punch List items and diligently prosecute such work to completion, consistent with the DB Documents, prior to issuance of Final Acceptance.

### **7.7.3 Final Acceptance**

**7.7.3.1** Promptly after achieving Substantial Completion, DB Team shall perform all remaining Construction Work for the Project, including completion of all Punch List items, all landscaping other than vegetative ground cover and aesthetic features. DB Team shall prepare and adhere to a timetable for planting and establishing the vegetative ground cover landscaping, taking into account weather conditions necessary for successful planting and growth, which timetable shall in any event provide for vegetative ground cover landscaping to be planted and established by twelve (12) months after Substantial Completion.

**7.7.3.2** SRTA will issue a written certificate of Final Acceptance at such time as all of the following have occurred for the Project:

- (a) All requirements for Substantial Completion have been satisfied;
- (b) All Punch List items have been completed and delivered to the reasonable satisfaction of SRTA and GDOT;
- (c) SRTA and GDOT has received a complete set of the Record Drawings in form and content required by Section 2.3.9 and Section 23.5 of the Technical Provisions;
- (d) All Utility Adjustment Work and other work that DB Team is obligated to perform for or on behalf of third parties has been accepted by such third parties, and DB Team has paid for all work by third parties that DB Team is obligated to pay for, other than disputed amounts;

(e) DB Team has paid in full all Liquidated Damages that are due to SRTA pursuant to this Agreement and are not in Dispute, and has provided to GDOT reasonable security for the full amount of Liquidated Damages that may then be the subject of an unresolved Dispute;

(f) There exist no uncured DB Team Defaults that are the subject of a Warning Notice, or with the giving of notice or passage of time, or both, could become the subject of a Warning Notice (except any DB Team Default for which Final Acceptance will affect its cure);

(g) DB Team has received, and paid all associated fees for, all applicable Governmental Approvals and other applicable third party approvals required pursuant to the DB Documents, and there exists no uncured material violation of the terms and conditions of any such Governmental Approval or other third party approvals;

(h) DB Team has delivered to SRTA and GDOT all warranties, manuals and other Deliverables as required pursuant to the Technical Provisions; and

(i) DB Team has delivered to SRTA and GDOT verification of all required post construction period, including completed operations, Insurance Policies required under this DB Documents.

**7.7.3.3** DB Team shall provide SRTA with written notification when DB Team determines it has achieved Final Acceptance. During the fifteen (15) day period following receipt of such notification, DB Team, SRTA, and GDOT shall meet and confer and exchange information on a regular cooperative basis with the goal being GDOT's orderly, timely inspection and review of the Project and the Record Drawings, and SRTA's issuance of a written certificate of Final Acceptance.

**7.7.3.4** During such fifteen (15) day period, GDOT shall conduct an inspection of the Punch List items, a review of the Record Drawings and such other investigation as may be necessary to evaluate whether the conditions to Final Acceptance are satisfied. SRTA shall deliver a written report of findings and recommendations to DB Team following such inspection, review and investigation and in any case by the end of such fifteen (15) day period.

**7.7.3.5** Within five (5) days after expiration of such fifteen (15) day period and SRTA's receipt of GDOT's report of findings and recommendation, SRTA shall either (a) issue a certificate of Final Acceptance or (b) notify DB Team in writing setting forth, as applicable, why Final Acceptance has not been achieved. If SRTA and DB Team cannot agree as to the date of Final Acceptance, such Dispute shall be resolved according to Article 17.

#### **7.7.4 Early Opening of Portions of the Project**

The Proposer may open portions of the Work before Substantial Completion, in which case each will be identified in the Preliminary Baseline Schedule and, with the same duration from NTP1, the Baseline Schedule when each of those portions will be safe to open.

If the DB Team determines that a portion of the Work identified in the Preliminary Baseline Schedule is safe to open to traffic, that portion must include the following prior to being considered safe to open: all lanes in that direction paved to 12.5MM OGFC layer, permanent striping (temporary tape may be used in lane drop tapers), temporary signing, and temporary barrier wall installed. When it determines that that portion of Work is safe to open, the DB Team may notify GDOT thereof through written notice identifying the portion of the Work and asserting that the DB

Team believes that it is safe to open. Prior to notifying GDOT, the Engineer of Record shall review the condition of that portion of the Work and make a determination that it is safe to open or will produce a checklist of any remaining Work that must be completed prior to that portion of the Work being considered safe to open, with required changes to the Work identified, and submit the checklist to GDOT. Upon receipt of such list, GDOT will review the list and accept, revise, or reject the list for completeness or sufficiency of the items identified and proposed resolution. The DB Team may not open any portion of the Work unless GDOT provides written notice to the DB Team that such portion of Work is safe to open.

The DB Team and GDOT together will inspect that portion of the Work asserted to be safe to open. GDOT will respond within five (5) days after the agreed-upon date of the inspection. If GDOT concurs, GDOT will provide written notice to the DB Team that such portion of the Segment is safe to open. If GDOT does not concur, it will provide the DB Team a list of the items that need to be corrected or completed prior to opening that portion of the Work. This process will repeat until GDOT concurs and provides written notice that that portion of the Work is safe to open and will identify the date when GDOT's determination was made. The date so identified is the Interim Completion Date for that portion of the Work.

If the Interim Completion Date is later than the Interim Completion Deadline, as identified in Exhibit 9 to the Agreement, the DB Team is liable for Liquidated Damages per Agreement Section 17.4.1.

The DB Team remains responsible for all repair or replacement for portions of the Work released prior to Substantial Completion. Maintenance responsibilities remain with the DB Team until GDOT issues Final Acceptance. Designation of safe to open for any portion of the Project shall not start a warranty period for any portion of the Work or void or alter any terms of the Agreement.

Opening of portions of the Project prior to Substantial Completion or Final Acceptance does not constitute acceptance of the Work or a waiver of any provisions of the DB Documents.

## **7.8 Hazardous Materials Management**

**7.8.1** DB Team shall comply with all requirements set forth in GDOT Standard Specification 107.22 and Exhibit 11.

## **7.9 Environmental Compliance**

Throughout the course of the Design Work and Construction Work, DB Team's Work shall take into account, be coordinated to allow for, and be performed in accordance with all environmental mitigation measures required under the Environmental Document approvals, including but not limited to the NEPA/GEPA Approval and any other Governmental Approvals for the Project, or under the DB Documents, and shall comply with all other conditions and requirements of the Environmental Approvals in accordance with Section 4 of the Technical Provisions, provided that the foregoing shall not require nor imply any requirement for DB Team to perform any remediation or disposal of Pre-existing Hazardous Materials or SRTA Release(s) of Hazardous Materials.

## **7.10 Meetings**

### **7.10.1 Meetings**

**7.10.1.1** DB Team shall conduct regular progress meetings with SRTA and GDOT at least once a week during the course of Design Work and Construction Work. These

meetings shall be attended by the DB Team's Lead Contractor's project manager and the Lead Design Engineer or Authorized Representatives of each and any other Key Personnel as needed for productive use of the meetings.

**7.10.1.2** In addition, SRTA and DB Team, through their respective Authorized Representatives, shall meet from time to time at the other Party's request to discuss and resolve matters relating to the Work or the Project.

**7.10.1.3** DB Team shall schedule all meetings with SRTA and GDOT at a date, time and place reasonably convenient to both Parties and, except in the case of urgency, shall provide SRTA and GDOT with written notice and a meeting agenda at least one (1) Business Day in advance of each meeting.

**7.10.1.4** DB Team shall be responsible to document and maintain the full subject matter of all meetings and shall distribute copies of meeting minutes to SRTA and GDOT not later than ten (10) days following such meetings.

## **7.11 Contractor Warranties and Correction of Non-Conforming and Defective Work**

**7.11.1** DB Team shall obtain customary and reasonable warranties from all Contractors with respect to design, materials, workmanship, installations, equipment, tools, supplies, software or services, all of which DB Team shall cause to be expressly extended and assigned to SRTA, or its designee; provided that the foregoing requirement shall not apply to standard, pre-specified manufacturer warranties of mass-marketed materials, products (including software products), equipment or supplies where the warranty cannot be extended to SRTA using commercially reasonable efforts. To the extent that any Contractor warranty would be voided by reason of DB Team's negligence in incorporating material or equipment into the Work, DB Team shall be responsible for correcting such defect.

**7.11.2** Contractor warranties (if any) are in addition to all rights and remedies available under the DB Documents or applicable Law or in equity, and shall not limit DB Team's liability or responsibility imposed by the DB Documents or applicable Law or in equity with respect to the Work, including liability for design defects, latent construction defects, strict liability, breach, negligence, willful misconduct or fraud.

**7.11.3** Reserved.

**7.11.4** When any act, omission, or other action of DB Team occurs that violates the requirements, conditions, or terms of the DB Documents, or affects the health, safety, or welfare of the public or natural resources, SRTA shall have the right, but not the obligation, to require and direct DB Team to take prompt action to replace, repair, or restore such damage, injury or condition within a time frame established by SRTA, at DB Team's sole cost and expenses and without entitlement to a Relief Event or Compensation Event.

## **7.12 Reserved**

## **7.13 Maintenance During Construction Work**

**7.13.1** SRTA shall be responsible for the operation and maintenance of the Existing Right of Way and any acquired right or interest in any Required Right of Way until the Construction Commencement Date. Upon NTP 3, DB Team shall assume full responsibility for

maintenance of all Elements within the Construction Maintenance Limits in accordance with the Construction Maintenance Limits Plan and the requirements of the DB Documents.

**7.13.2** Upon Final Acceptance, SRTA will assume, or cause GDOT to assume, responsibility for the operation and maintenance of the entire Project, provided that where GDOT has opened any portion of the Project to the public prior to Final Acceptance, GDOT shall then assume, responsibility for the operations and maintenance of such portions of the Project at such earlier time, provided, however that in all cases, DB Team shall remain responsible for all Work until Final Acceptance and nothing contained herein shall otherwise limit any warranty obligations of DB Team with respect to any Defect or non-conforming Work.

#### **7.14 For Best Value Projects Only: Impact of ATCs on the Project**

**7.14.1** If implementation of an ATC forming part of the Project requires the approval or consent of any Government Entity (other than SRTA or GDOT) or other third party, then (a) DB Team will have full responsibility for, and bear the full risk of, obtaining any such approval or consent, and (b) if such approval or consent is not granted, or there is an unreasonable and unjustified delay in obtaining such approval or consent (subject to Article 14) (i) DB Team shall perform the Work as if such ATC had never formed part of the Project, and shall not be entitled to any additional time or compensation as a result thereof. The foregoing shall not limit DB Team's rights with respect to any claim under subpart (n) of the definition of Compensation Event or subpart (t) of the definition of Relief Event on account of delays or impact costs solely related to the re-evaluation of the NEPA Approval after expiration of the GDOT Re-evaluation Period.

### **Article 8 SECURITY AND INCIDENT RESPONSE**

#### **8.1.1 Security and Incident Response**

**8.1.1.1** DB Team is responsible for the safety and security of the applicable portion of the Project that is under the control of any DB Team-Related Entity and the workers and public thereon during the performance of the Work.

**8.1.1.2** Reserved

**8.1.1.3** DB Team shall perform and comply with the provisions of the Technical Provisions concerning Incident Response, safety and security.

### **Article 9 MANAGEMENT SYSTEMS AND OVERSIGHT**

#### **9.1 Project Management**

**9.1.1** DB Team is responsible for all quality assurance activities necessary to manage the Work, including the Utility Adjustment Work. DB Team shall undertake all required aspects of quality assurance for the Project and Work in accordance with the DB Documents and Good Industry Practice.

**9.1.2** DB Team shall develop the necessary plans and documentation in accordance with the Proposal, this Agreement, and Sections 2 and 23 of the Technical Provisions, and Good Industry Practice.

**9.1.3** DB Team shall submit to SRTA for acceptance in its good faith discretion in accordance with the procedures described in Section 6.3 of this Agreement and the Technical Provisions each component part, plan and any proposed changes or additions to or revisions of any such component part, plan or other documentation identified in the DB Documents. Each component part, plan and other documentation of the Management Plans or any submittal identified in this Agreement, Section 23 of the Technical Provisions, including in Table 23-1, and the DB Documents, and each proposed change or addition to or revision of any such component part, plan or other documentation shall constitute a separate Submittal for purposes of Section 6.3. SRTA may propose any change required to comply with Good Industry Practice or to reflect a change in working practice to be implemented by DB Team.

**9.1.4** DB Team shall not commence or permit the commencement of any aspect of the design or construction before the relevant component parts, plans and other documentation of the Management Plans applicable to such Work have been submitted to and accepted by SRTA.

**9.1.5** Reserved.

**9.1.6** DB Team shall carry out internal audits of the Management Plans at the times prescribed in the Management Plans.

**9.1.7** DB Team shall cause each of its Contractors at every level to comply with the applicable requirements of the DB Documents.

**9.1.8** The DB Team shall designate a Quality Manager who shall, irrespective of their other responsibilities, have defined authority for ensuring the establishment and maintenance of the Management Plans and reporting to SRTA on the performance of the Management Plans.

## **9.2 Traffic Management**

**9.2.1** Upon SRTA issuance of NTP 3 and until Final Acceptance of the Project, DB Team shall be responsible for the general management of traffic on the applicable portion of the Project under the control of any DB Team-Related Entity. DB Team shall manage traffic so as to preserve and protect safety of traffic on such portions and Related Transportation Facilities and, to the maximum extent practicable, to avoid disruption, interruption or other adverse effects on traffic flow, throughput or level of service on the Related Transportation Facilities. DB Team shall conduct and carry out traffic management in accordance with all applicable Technical Provisions, Technical Documents, Laws and Governmental Approvals, and in accordance with the Transportation Management Plan, as well as any directives as may be required pursuant to Section 8.1.1.2 of the Technical Provisions.

**9.2.2** DB Team shall prepare and submit to SRTA, for SRTA acceptance, a Transportation Management Plan by Project Phase for managing traffic on the Project and Related Transportation Facilities, during the period of construction (from the period from NTP 3 to Final ), addressing (a) orderly and safe movement and diversion of traffic on the Project and Related Transportation Facilities, and (b) orderly and safe diversion of traffic on the Related Transportation Facilities necessary in connection with field maintenance and repair work in response to Incidents, Emergencies and lane closures. The Transportation Management Plan shall promote safe and efficient operation of the Project and Related Transportation Facilities at all times during the course of construction of the Project, including during Utility Adjustment Work. DB Team shall prepare the Transportation Management Plan according to the schedule set forth

in Article 18 of the Technical Provisions. The Transportation Management Plan shall comply with the Technical Provisions and Technical Documents concerning traffic management and traffic operations.

**9.2.3** SRTA shall have at all times, without obligation or liability to DB Team, the right to:

**9.2.3.1** Issue a Directive Letter to DB Team regarding traffic management and control (with which DB Team shall comply), or directly assume traffic management and control, of the Project during any period that (a) SRTA designates the Project or portion of the Project for immediate use as an emergency evacuation route or a route to respond to a disaster proclaimed by the Governor of Georgia, the President of the United States, or by any other federal or State agency, or any of the aforementioned's respective designees, including reversing the direction of traffic flow during such period, (b) SRTA designates the Project or a portion of the Project for immediate use as an alternate route for diversion of traffic from any interstate or Highway temporarily closed to all lanes in one or both directions due to Incident or Emergency or (c) the Commissioner determines such action will be in the public interest as a result of an emergency or natural disaster; and

**9.2.3.2** Provide on the Project, via message signs or other means consistent with Good Industry Practice, non-discriminatory traveler and driver information, and other public information (e.g. amber alerts), provided that the means to disseminate such information does not materially interfere with the Work.

## **Article 10 CONTRACTING AND LABOR PRACTICES**

### **10.1 Reserved.**

### **10.2 Responsibility for Work, Contractors and Employees**

**10.2.1** DB Team shall retain or cause to be retained only Contractors that are qualified, experienced and capable in the performance of the portion of the Work assigned. DB Team shall assure that each Contractor has at the time of execution of the Contract, and maintains at all times during performance of the assigned Work, all licenses required by applicable Laws. DB Team shall require all Contractors to adhere to the requirements herein with respect to Subcontractors.

**10.2.2** The retention of Contractors by DB Team will not relieve DB Team of its responsibilities hereunder or for the quality of the Work or materials or services provided by it.

**10.2.3** Each Contract shall include terms and conditions sufficient to ensure compliance by all Contractors and Subcontractors, all parties performing any Work on behalf thereof, with the requirements of the DB Documents, and shall include those terms that are specifically required by the DB Documents to be included therein, including, to the extent applicable, those set forth in Exhibit 8 and any other applicable Federal Requirements.

**10.2.4** Nothing in the DB Documents will create any contractual relationship between GDOT and any Subcontractor. No Contract entered into by or under DB Team shall impose any obligation or liability upon SRTA or GDOT to any Subcontractor, or any of their respective employees.

**10.2.5** DB Team shall supervise and be fully responsible for the actions, omissions, negligence, willful misconduct, or breach of applicable Law or contract by any Contractor or DB Team-Related Entity, or their respective members, officers, directors, partners, and employees, as though DB Team directly employed all such individuals.

**10.3 Reserved.**

**10.4 Key Personnel**

**10.4.1** DB Team shall retain, employ and utilize the individuals specifically listed in Exhibit 2 to fill the corresponding Key Personnel positions listed therein. DB Team shall not change or substitute any such individuals except due to retirement, death, disability, incapacity, or voluntary or involuntary termination of employment, or as otherwise accepted by SRTA pursuant to Article 10.4.2. In such circumstances, DB Team shall promptly propose a replacement with comparable experience for such position.

**10.4.2** DB Team shall notify SRTA in writing of any proposed replacement for any Key Personnel position. Any proposed replacement for a Key Personnel position must be equal or better than the original Key Personnel. SRTA shall have the right to review the qualifications and character of each individual to be appointed to a Key Personnel position (including personnel employed by Contractors to fill any such position) and to accept or disapprove use of such individual in such position prior to the commencement of any Work by such individual. If DB Team fails to provide a proposed replacement that is sufficiently qualified to SRTA within thirty (30) days after notifying SRTA of a proposed replacement for any Key Personnel position, then such failure shall constitute a DB Team Default pursuant to Article 17.1.1.

**10.4.3** DB Team shall cause each individual filling a Key Personnel position to dedicate the full amount of time necessary for the proper prosecution and performance of the Work.

**10.4.4** DB Team shall provide SRTA phone numbers and email addresses for all Key Personnel. SRTA requires the ability to contact Key Personnel twenty-four (24) hours per day, seven (7) days per week.

**10.5 Reserved.**

**10.6 Labor Standards**

**10.6.1** In the performance of its obligations under the DB Documents, DB Team at all times shall comply, and require by contract that all Contractors and vendors comply, with all applicable federal and State labor, occupational safety and health standards, rules, regulations and federal and State orders.

**10.6.2** All individuals performing the Work shall have the skill and experience and any licenses or certifications required to perform the Work assigned to them.

**10.6.3** If any individual employed by DB Team or any Contractor is not performing the Work in a proper, safe and skillful manner, then DB Team shall, or shall cause such Contractor to, remove such individual and such individual shall not be re-employed on the Work. If, after notice and reasonable opportunity to cure, such individual is not removed or if DB Team fails to ensure that skilled and experienced personnel are furnished for the proper performance of the Work, then SRTA may suspend the affected portion of the Work by delivering to DB Team written

notice of such suspension. Such suspension shall in no way relieve DB Team of any obligation contained in the DB Documents or entitle DB Team to any additional compensation or time extension hereunder.

**10.6.4** DB Team and its Contractors shall comply with the Georgia Immigration & Compliance Act ("Immigration Act"), O.C.G.A. § 13-10-90, *et seq.* DB Team must certify compliance with the Immigration Act using the form attached as Exhibit 19. The required certificates and affidavits must be filed with SRTA and copies maintained by DB Team and each Contractor as of the Effective Date, recertified as of July 15 of each year, and again recertified upon final completion of the Work under the applicable Contract. State officials, including officials of the Georgia Department of Labor, SRTA, and GDOT, retain the right to inspect and audit the Project and employment records of DB Team and all Contractors without notice during normal working hours until the Work under the applicable Contract is complete, and as otherwise specified by Law.

## **10.7 Reserved.**

## **10.8 Non-Discrimination; Equal Employment Opportunity**

**10.8.1** DB Team shall not, and shall cause the Contractors to not, discriminate on the basis of race, color, national origin, sex, age, religion or handicap in the performance of the Work under the DB Documents. DB Team shall carry out, and shall cause the Contractors to carry out, applicable requirements of 49 CFR Part 26. Failure by DB Team to carry out these requirements is a material breach of this Agreement, which may result in a Default Termination Event and the termination of this Agreement or such other remedy permitted hereunder as SRTA deems appropriate (subject to DB Team's rights to notice and opportunity to cure set forth in this Agreement), but is not limited to (1) withholding monthly progress payments; (2) assessing sanctions; (3) liquidated damages; and/or (4) disqualifying the contractor from future bidding as non-responsible.

**10.8.2** DB Team shall include the immediately preceding paragraph in every Contract (including purchase orders and in every Contract of any DB Team-Related Entity for Work), and shall require that they be included in all Contracts at lower tiers, so that such provisions will be binding upon each Contractor.

## **10.9 Disadvantaged Business Enterprise**

### **10.9.1 General**

**10.9.1.1** DB Team shall comply with 49 CFR Part 26 and GDOT's Disadvantaged Business Enterprise (DBE) policy and program. The purpose of GDOT's DBE policy and program is to ensure that DBEs shall have an equal opportunity to participate in the performance of contracts financed in whole or in part with federal funds. DB Team shall comply with all applicable requirements set forth in GDOT's DBE policy and program.

**10.9.1.2** DB Team shall include provisions to effectuate GDOT's DBE policy and program in every Contract to which it is a party (including purchase orders and task orders for Work), and shall require that they be included in all Contracts at lower tiers (including purchase orders and task orders for Work), so that such provisions will be binding upon each Contractor. The DB Team shall ensure that all contracts and subcontracts (including purchase orders and

task orders for Work) with DBEs to supply labor or materials are required to be performed in accordance with 49 CFR Part 26.53.

### **10.9.2 DBE Participation Goals**

**10.9.2.1** GDOT's overall statewide DBE goal is fifteen percent (15%) of the overall Project design and construction costs.

**10.9.2.2** DB Team shall exercise good faith efforts to achieve such DBE participation goal for the Project.

### **10.9.3 Compliance with DBE Participation Goals**

**10.9.3.1** DB Team shall not terminate, and shall not allow a Contractor to terminate, a DBE Subcontractor listed in its Proposal (or an approved substitute DBE firm) without GDOT's prior written consent. This includes, but is not limited to, instances in which a Contractor seeks to perform work originally designated for a DBE Subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm.

**10.9.3.2** DB Team shall include a provision in every Contract to which it is a party stating that the Contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the contractor obtains GDOT's consent as provided in 49 CFR Part 26.3(f) and that unless GDOT's consent is provided under 49 CFR Part 26.3(f), the Contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE.

**10.9.3.3** DB Team shall make available to GDOT upon request a copy of all DBE subcontracts.

**10.9.3.4** Before transmitting to GDOT a request to terminate and/or substitute a DBE Subcontractor, the DB Team or Contractor must give notice in writing to the DBE Subcontractor, with a copy to GDOT, of its intent to request to terminate and/or substitute, and the reason for the request. The DB Team or Contractor must give the DBE five days to respond to the notice and advise GDOT and the DB Team or Contractor of the reasons, if any, why it objects to the proposed termination of its subcontract and why GDOT should not approve the termination and/or substitution.

**10.9.3.5** GDOT may only provide written consent allowing the DB Team or a Contractor to terminate a DBE firm listed in the Proposal if GDOT agrees that that the DB Team or Contractor has good cause to terminate the DBE firm. For the purposes of 49 CFR Part 26.3(f), good cause includes the following circumstances:

- (i) The listed DBE Subcontractor fails or refuses to execute a written contract;
- (ii) The listed DBE Subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the DBE Subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the DB Team or Contractor;

- (iii) The listed DBE Subcontractor fails or refuses to meet the DB Team's or Contractor's reasonable, nondiscriminatory bond requirements.
- (iv) The listed DBE Subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness;
- (v) The listed DBE Subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings pursuant 23 CFR Parts 180, 215 and 1,200 or applicable state law;
- (vi) The listed DBE Subcontractor voluntarily withdraws from the project and provides to you written notice of its withdrawal;
- (vii) GDOT has determined that the listed DBE Subcontractor is not a responsible contractor;
- (viii) The listed DBE is ineligible to receive DBE credit for the type of work required;
- (ix) A DBE owner dies or becomes disabled with the result that the listed DBE contractor is unable to complete its work on the contract;
- (x) Other documented good cause that GDOT determines compels the termination of the DBE Subcontractor. Provided, that good cause does not exist if the DB Team or Contractor seeks to terminate a DBE it relied upon to obtain the work so that the DB Team or Contractor can self-perform the work for which the DBE contractor was engaged or so that the DB Team or Contractor can substitute another DBE or non-DBE contractor after contract award.

**10.9.3.6** When a DBE Subcontractor is terminated as provided above, or fails to complete its work for any reason, DB Team or Contractor is required to make good faith efforts to find another DBE Subcontractor to substitute for the original DBE. These good faith efforts shall be directed at finding another DBE to perform at least the same amount of work under the Contract as the DBE that was terminated, to the extent needed to meet the established DBE participation goal. The good faith efforts shall be documented by the DB Team or Contractor. If GDOT requests documentation of such good faith efforts, , the DB Team or Contractor shall submit the documentation within 7 days, which may be extended for an additional 7 days if necessary at the request of the DB Team or Contractor, and GDOT shall provide a written determination stating whether or not good faith efforts have been demonstrated.

## **10.10 Job Training Program**

**10.10.1** DB Team, at its own cost and expense, shall include on-the-job training and shall submit to GDOT review and acceptance a plan meeting all requirements set forth in GDOT Standard Specification 158. There are 23,000 required training hours for this project.

## **10.11 Prevailing Wages**

**10.11.1** DB Team shall pay or cause to be paid to all applicable workers employed by it or its Contractors to perform the Work not less than the prevailing rates of wages, as provided in the statutes and regulations applicable to public work contracts, including the Davis-Bacon Act, and as provided in Exhibit 8. DB Team shall comply and cause its Contractors to

comply with all Laws pertaining to prevailing wages. For the purpose of applying such Laws, the Project shall be treated as a public work paid for in whole or in part with public funds (regardless of whether public funds are actually used to pay for the Project). The foregoing shall not apply to Contracts at any tier with Governmental Entities.

**10.11.2** It is DB Team's sole responsibility to determine the wage rates required to be paid. In the event rates of wages and benefits change while this Agreement is in effect, DB Team shall bear the cost of such changes and shall have no Claim against SRTA or GDOT on account of such changes. Without limiting the foregoing, no Claim will be allowed which is based upon DB Team's lack of knowledge or a misunderstanding of any such requirements.

**10.11.3** DB Team shall comply and cause its Contractors, other than SRTA, GDOT or Governmental Entities acting as Contractors, to comply with all Laws regarding notice and posting of intent to pay prevailing wages, of prevailing wage requirements and of prevailing wage rates.

## **10.12 Prompt Payment to Contractors and Pay When Paid Provisions**

DB Team shall comply with the Georgia Prompt Payment Act, Code Section 13-11-1 *et seq.* Further, neither DB Team, the Design-Build Contractor or Contractor, nor any Subcontractor shall impose retainage upon any consultant, laborer, subcontractor, vendor, materialman, or supplier with whom any of them have contracted.

## **10.13 Suspension and Debarment**

DB Team shall deliver to SRTA, not later than January 31st of each year through Final Acceptance, and upon Final Acceptance, signed certifications regarding suspension, debarment, ineligibility, voluntary exclusion, convictions and civil judgments from DB Team, from each affiliate of DB Team (as "affiliate" is defined in 29 CFR 98.905 or successor regulation of similar import), and from each Contractor whose Contract amount equals or exceeds \$100,000. The annual certification shall be substantially in the form of paragraphs 1.a through 1.d of Attachment 7 to Exhibit 8 (Federal Requirements).

## **10.14 Uniforms**

Any uniforms, badges, logos and other identification worn by personnel of DB Team-Related Entities shall bear colors, lettering, design or other features to assure clear differentiation from those of SRTA, GDOT, and their employees.

# **Article 11 RELATED AND OTHER FACILITIES**

## **11.1 Integration with Related Transportation Facilities**

**11.1.1** DB Team shall locate, configure, design, and construct the termini, interchanges, entrances and exits of the Project so that the Project will be compatible and integrated with the location, configuration, design, operation and maintenance of, and provide a smooth, safe transition of traffic to and from, Related Transportation Facilities, as set forth in Section 11 of the Technical Provisions. The design for the Project shall include and provide for such compatibility, integration and transition. The design and construction of the Project, shall satisfy all provisions of the Technical Provisions and Management Plans relating to compatibility, integration and

transition with or at Related Transportation Facilities, including those concerning signage, signaling and communications with Users.

**11.1.2** Without limiting the foregoing, DB Team shall cooperate and coordinate with SRTA, GDOT, and any third party that owns, constructs, manages, operates or maintains a Related Transportation Project with regard to the construction, maintenance and repair programs and schedules for such Related Transportation Facilities, in order to minimize disruption to the operation thereof.

**11.1.3** To assist DB Team, SRTA shall provide to DB Team during normal working hours, reasonable access to plans, surveys, drawings, as-built drawings, specifications, reports and other documents and information in the possession of SRTA, GDOT, or their contractors and consultants pertaining to Related Transportation Facilities. DB Team, at its expense, shall have the right to make copies of the same. DB Team, at its expense, shall conduct such other inspections, investigations, document searches, surveys and other work as may be necessary to achieve compatibility, integration and transition with those Related Transportation Facilities identified in Section 11 of the Technical Provisions.

**11.1.4** SRTA shall provide reasonable assistance to DB Team, upon its request and at its expense, in obtaining cooperation and coordination from third parties that own, manage, operate or maintain Related Transportation Facilities and in enforcing rights, remedies and warranties that DB Team may have against any such third parties. Such assistance may include SRTA's participation in meetings and discussions. In no event shall SRTA be required to bring any legal action or proceeding against any such third party.

**11.1.5** SRTA shall have at all times, without obligation or liability to DB Team, the right to conduct traffic management activities on SRTA's Related Transportation Facilities and all other facilities of the State transportation network in the area of the Project in accordance with its standard traffic management practices and procedures in effect from time to time.

## **Article 12 SAFETY COMPLIANCE**

### **12.1 Safety Compliance**

#### **12.1.1 Safety Compliance Orders**

**12.1.1.1** SRTA shall use good faith efforts to inform DB Team at the earliest practicable time of any circumstance or information relating to the Project which in SRTA's reasonable judgment is likely to result in a Safety Compliance Order. Except in the case of Emergency, SRTA shall consult with DB Team and GDOT prior to issuing a Safety Compliance Order concerning the risk to public or worker safety, alternative compliance measures, cost impacts, and the availability of DB Team resources to fund the Safety Compliance work.

**12.1.1.2** GDOT's duties shall include monitoring and inspecting for the purpose of determining whether any circumstances exist that warrant issuance of a Safety Compliance Order with respect to the Design Work and the Construction Work, and giving reports and recommendations to the SRTA and DB Team with respect thereto.

**12.1.1.3** Subject to conducting such prior consultation, SRTA may issue Safety Compliance Orders to DB Team at any time from and after the Effective Date.

### **12.1.2 Duty to Comply**

**12.1.2.1** Subject to Article 12.1.1, DB Team shall implement all Safety Compliance as expeditiously as reasonably possible following issuance of the Safety Compliance Order. DB Team shall diligently prosecute the work necessary to achieve such Safety Compliance until completion, subject to any remedies allowed from the occurrence of a Relief Event.

**12.1.2.2** DB Team shall perform all work required to implement Safety Compliance at DB Team's sole cost and expense. Without limiting the foregoing and for the avoidance of doubt, in no event shall DB Team be entitled to (a) issue a Change Request, or (b) except as provided in Article 12.1.3, claim that a Compensation Event or Relief Event has occurred or resulted from the existence of a Safety Compliance Order.

### **12.1.3 Contesting Safety Compliance Orders**

DB Team may contest a Safety Compliance Order by delivering to SRTA written notice setting forth (a) DB Team's claim that no Safety Compliance conditions exist to justify the Safety Compliance Order, (b) DB Team's explanation of its claim in reasonable detail and (c) DB Team's estimate of impacts on costs and schedule attributable to the contested Safety Compliance Order. If SRTA does not receive such written notice prior to issuance of a Safety Compliance Order, or within fifteen (15) days after GDOT issues an emergency Safety Compliance Order, then DB Team thereafter shall have no right to contest. If DB Team timely contests a Safety Compliance Order, DB Team nevertheless shall implement the Safety Compliance Order, but if it is finally determined under the Dispute Resolution Procedures that Safety Compliance conditions did not exist, then the Safety Compliance Order shall be treated as a Directive Letter for a SRTA Change.

## **Article 13 RELIEF EVENTS; COMPENSATION EVENTS**

### **13.1 Relief Events**

#### **13.1.1 Relief Event Notice**

**13.1.1.1** If at any time the DB Team determines that a Relief Event has occurred or is imminent, DB Team shall promptly, submit a written Relief Event Notice to SRTA.

**13.1.1.2** The Relief Event Notice shall include (a) a statement of the Relief Event upon which the claim of delay or inability to perform is based, including its nature, the date of its occurrence and its duration; (b) the effect of the Relief Event on DB Team's ability to perform any of its obligations under the DB Documents, including details of the relevant obligations, an impacted delay analysis indicating all affected activities on any Critical Path (with activity durations, predecessor and successor activities and resources, including Float available pursuant to Article 3.3.5), and the likely duration of that effect; (c) an explanation of the measures that DB Team proposes to undertake to mitigate the delay and other consequences of the Relief Event; and (d) an estimate of the delay in performance of any obligations under the DB Documents attributable to the Relief Event. If a single Relief Event is a continuing cause of delay, only one Relief Event Notice shall be necessary.

**13.1.1.3** If, following issuance of any Relief Event Notice, DB Team receives or becomes aware of any further information relating to the Relief Event and/or any delay in performance or failure to perform, it shall submit such further information to SRTA not later than

seven (7) days of DB Team's receipt or knowledge, as the case may be. SRTA may request from DB Team any further information that SRTA may reasonably require, and DB Team shall supply the same within a reasonable period after such request.

**13.1.1.4** Time is of the essence in DB Team's delivery of its written Relief Event Notice. Accordingly, if for any reason DB Team fails to deliver a Relief Event Notice in strict accordance with this Article 13.1:

(a) Within thirty (30) days following the date (herein the "starting date") on which DB Team first became aware (or should have been aware, using all reasonable due diligence) of the Relief Event, DB Team shall be deemed to have irrevocably and forever waived and released the portion of any Claim or right to relief for adverse effect attributable to the Relief Event accruing after such thirty (30) day deadline and until the date DB Team submits the written Relief Event Notice; and

(b) Within one hundred eighty (180) days following the starting date, DB Team shall be deemed to have irrevocably and forever waived and released any and all Claim or right to relief (including extension of time for performance of Design Work or Construction Work) for any adverse effect attributable to such Relief Event.

#### **13.1.2 Extensions of Time for Relief Events**

**13.1.2.1** If DB Team complies with the notice and information requirements in this Article 13.1, then within thirty (30) days after receiving the Relief Event Notice (and, if applicable, any required updates thereto) SRTA, acting reasonably, and with consideration given recommendations made by GDOT, shall issue a Relief Event Determination. SRTA shall specify in the Relief Event Determination (a) the relevant obligations for which relief is given, (b) the period of time that Milestone Schedule Deadlines or periods set forth in the Project Schedule will be extended based on the number of days of delay affecting a Critical Path, after consumption of Float available pursuant to Section 3.3.5, that is directly attributable to the Relief Event and that cannot be avoided through reasonable mitigation measures and (c) if applicable, the period of time, if any, that the Contract Time will be extended. DB Team shall be relieved from the performance of obligations to the extent specified in the Relief Event Determination.

**13.1.2.2** DB Team shall not be excused from compliance with applicable Laws, Technical Provisions or Technical Documents due to the occurrence of a Relief Event, except temporary inability to comply as a direct result of a Relief Event.

**13.1.2.3** If SRTA is obligated to but does not provide a Relief Event Determination within such thirty (30) day period or if DB Team disagrees with the length of the extension of the Contract Time or other relief set forth in the Relief Event Determination, DB Team shall have the right to assert a Claim against SRTA for the relevant Relief Event and have such Claim determined according to the Dispute Resolution Procedures. Any Dispute regarding the occurrence of a Relief Event, the terms of the Relief Event Determination or waiver of DB Team's Claim or right to relief shall be resolved according to the Dispute Resolution Procedures.

**13.1.2.4** Without limiting DB Team's rights with respect to monetary relief for Compensation Events as set forth in this Agreement, the extensions of time as provided, if any, pursuant to this Article 13.1 are DB Team's sole remedy for a Relief Event.

**13.1.2.5** Except to the extent of a Claim asserted by DB Team pursuant to Article 13.1.2.3 above, a Relief Event Determination shall be deemed to be a Supplement Agreement as set forth pursuant to Article 14.4.

## **13.2 Compensation Events**

### **13.2.1 Compensation Event Notice**

**13.2.1.1** Except as otherwise expressly provided in this Agreement, if at any time DB Team determines that a Compensation Event has occurred or is imminent, DB Team shall submit a written Compensation Event Notice to SRTA.

**13.2.1.2** The Compensation Event Notice shall identify the Compensation Event and its date of occurrence in reasonable detail, describe DB Team's current estimate of the anticipated adverse and beneficial effects of the Compensation Event, and include written analysis and calculation of DB Team's current estimate of the estimated increase or decrease in costs, to the extent applicable to the Compensation Event.

**13.2.1.3** If, following issuance of any Compensation Event Notice, DB Team receives or becomes aware of any further information relating to the Compensation Event, it shall submit such further information to SRTA not later than seven (7) days of DB Team's receipt or knowledge, as the case may be. SRTA may request from DB Team any further information that SRTA may reasonably require, and DB Team shall supply the same within a reasonable period after such request.

**13.2.1.4** Time is of the essence in DB Team's delivery of its written Compensation Event Notice. Accordingly, if for any reason DB Team fails to deliver such written Compensation Event Notice in strict accordance with this Article 13.2:

(a) Within thirty (30) days following the date (herein the "starting date") on which DB Team first became aware (or should have been aware, using all reasonable due diligence) of the occurrence of such Compensation Event, DB Team shall be deemed to have irrevocably and forever waived and released the portion of any Claim or right to compensation for costs attributable to such Compensation Event accruing after such thirty (30) day deadline and until the date DB Team submits the written Compensation Event Notice; and

(b) Within one hundred eighty (180) days following the starting date, DB Team shall be deemed to have irrevocably and forever waived and released any and all Claim or right to compensation for any costs attributable to such Compensation Event.

**13.2.2** If DB Team complies with the notice and information requirements in this Article 13.2, SRTA shall, acting reasonably, meet with DB Team within sixty (60) days of receipt of Compensation Event Notice and commence good faith negotiations to determine the Compensation Amount, if any, to which DB Team is entitled. If DB Team stands ready to commence good faith negotiations to determine the Compensation Amount within the foregoing time period but for any reason SRTA does not commence to engage therein within the foregoing time period, then, subject to compliance with the notice and information requirements in Sections 13.2.1.1 and 13.2.1.3, DB Team shall have the right to assert a Claim against SRTA for the relevant Compensation Amount (if any) and have such Claim determined according to the Dispute Resolution Procedures.

**13.2.3** The Compensation Amount, if any, shall be determined by applying the following provisions.

**13.2.3.1** Cost impacts shall:

(a) Exclude (i) third-party entertainment costs, lobbying and political activity costs, costs of alcoholic beverages, costs for first class travel in excess of prevailing economy travel costs, and costs of club memberships, in each case to the extent that such costs would not be reimbursed to an employee of SRTA or GDOT in the regular course of business, and (ii) unallowable costs under the following provisions of the federal Contract Cost Principles, 48 CFR 31.205: 31.205-8 (contributions or donations), 31.205-13 (employee morale, health, welfare, food service, and dormitory costs and credits), 31.205-14 (entertainment costs), 31.205-15 (fines, penalties, and mischarging costs), 31.205-27 (organization costs), 31.205-34 (recruitment costs), 31.205-35 (relocation costs), 31.205-43 (trade, business, technical and professional activity costs), 31.205-44 (training and education costs), and 31.205-47 (costs related to legal and other proceedings);

(b) Exclude amounts paid or to be paid to Affiliates in excess of the pricing DB Team could reasonably obtain in an arms' length, competitive transaction with an unaffiliated Contractor;

(c) Exclude those costs incurred in asserting, pursuing or enforcing any Claim or Dispute;

(d) Take into account any savings in costs resulting from the Compensation Event;

(e) Be subject to DB Team's obligation to mitigate cost increases and augment cost decreases in accordance with this Article 13.2;

(f) Shall not include any impact costs for delay for the sixty (60) cumulative days of delay due to interference or work of Separate Contractors engaged by GDOT or any other Governmental Entity with respect to the Project; and

(g) Be consistent and not exceed such amounts as set forth in the Technical Provisions.

**13.2.3.2** In all cases the Compensation Amount shall be net of all insurance available to DB Team, or deemed to be self-insured by DB Team under Article 16, with respect to cost or revenue impacts of the Compensation Event.

**13.2.3.3** The Compensation Amount shall not include any amount on account of federal, State, or local income taxes. Further and notwithstanding anything to the contrary herein, the Compensation Amount shall not include, under any circumstances, costs incurred by DB Team or any Contractors on account of charges or expenses due to (a) the business organization existence or maintenance of its business of any DB Team-Related Party or (b) labor or employment matters as a result of any Change in Law.

**13.2.4** If the Compensation Event is under clause (j) of the definition of Compensation Event, then the Compensation Amount shall be limited to the incremental increase in costs of initial design and construction due to delay and disruption directly attributable to the court order.

**13.2.5** DB Team shall share with SRTA all data, documents and information pertaining to bids for any work that is the subject of a Compensation Amount, and all of the aforementioned shall be on an Open Book Basis.

**13.2.6** If SRTA and DB Team are unable to agree on the Compensation Amount within thirty (30) days after commencing good faith negotiations, or if DB Team asserts a Claim against SRTA for the Compensation Amount as provided in this Article 13.2, SRTA shall prepare a good faith estimate of the Compensation Amount, and shall pay the full undisputed portion of the Compensation Amount to DB Team within thirty (30) days, or any other arrangement as the parties may mutually agree upon. Any Dispute regarding occurrence of a Compensation Event, determination of the Compensation Amount or waiver of DB Team's Claim or right to compensation shall be resolved according to the Dispute Resolution Procedures. The dispute resolution body(ies) shall apply the provisions of this Article 13.2 in determining the Compensation Amount.

**13.2.7** Following a determination of the Compensation Amount by mutual agreement or the Dispute Resolution Procedures, SRTA shall pay such Compensation Amount (a) through periodic payments of the Compensation Amount in accordance with a written payment schedule determined by mutual agreement or through the Dispute Resolution Procedures corresponding to when the cost impacts that make up the Compensation Amount are anticipated to occur, (b) in a lump sum, payable as determined by mutual agreement or through the Dispute Resolution Procedures, or (c) in such other manner as agreed upon by the Parties. SRTA, in its sole discretion, shall be entitled to select one or any combination of the foregoing methods of compensation.

**13.2.8** Without limiting DB Team's rights with respect to non-monetary relief for Relief Events as set forth in this Agreement, the Compensation Amount shall represent the sole right to compensation and damages for the adverse financial effects of a Compensation Event. As a condition precedent to SRTA's obligation to pay any portion of the Compensation Amount, DB Team shall execute a full, unconditional, irrevocable release, in form reasonably acceptable to SRTA, of any Claims, Losses or other rights to compensation or other monetary relief associated with such Compensation Event, except for the Claim and right to the subject Compensation Amount, DB Team's right to non-monetary relief for a Relief Event, and the right to terminate this Agreement in accordance with Article 19.4 and to receive any applicable Termination Compensation.

**13.2.9** Except to the extent of a Claim asserted by DB Team pursuant to Section 13.2.6 above, a Compensation Event Determination shall be deemed to be a Supplement Agreement as set forth pursuant to Article 14.4.

### **13.3 Mitigation**

DB Team shall take all steps reasonably necessary to mitigate the consequences of any Relief Event or Compensation Event, including all steps that would generally be taken in accordance with Good Industry Practice.

## **Article 14 SRTA CHANGES; DB TEAM CHANGES; DIRECTIVE LETTERS**

This Article 14 sets forth the requirements for obtaining all Supplemental Agreements under this Agreement. DB Team hereby acknowledges and agrees that the Contract Sum is full

and adequate compensation for performance of all of the Work, subject only to those exceptions specified in Article 13 and this Article 14 DB Team unconditionally and irrevocably waives the right to any claim for any monetary compensation or other relief in addition to that specifically provided under the terms of this Agreement, except in accordance with Article 13 and this Article 14. The foregoing waiver encompasses all theories of liability, whether in contract, tort (including negligence), equity, quantum meruit or otherwise, and encompasses all theories to extinguish contractual obligations, including impracticability, mutual mistake and frustration of purpose. Nothing in the Technical Provisions or Technical Documents shall have the intent or effect or shall be construed to create any right of DB Team to any Supplemental Agreement or other Claim for additional monetary compensation or other relief, any provision in the Technical Provisions or Technical Documents to the contrary notwithstanding.

## **14.1 SRTA Changes**

### **14.1.1 SRTA's Right to Issue a Supplemental Agreement and Directive Letter**

SRTA may, at any time and from time to time, without notice to any Surety, authorize, cause and/or require, pursuant to a Supplemental Agreement or Directive Letter, changes in the Work, including additions or deletions, or in terms and conditions of the Technical Provisions or Technical Documents (including changes in the standards applicable to the Work).

### **14.1.2 Request for Change Proposal**

**14.1.2.1** If SRTA desires to initiate a SRTA Change or to evaluate whether to initiate such a change, then SRTA may, at its discretion, issue a Request for Change Proposal. The Request for Change Proposal shall set forth the nature, extent and details of the proposed SRTA Change.

**14.1.2.2** Within five (5) Business Days after DB Team receives a Request for Change Proposal, or such longer period to which the Parties may mutually agree, SRTA and DB Team shall consult to define the proposed scope of the change. Within five (5) Business Days after the initial consultation, or such longer period to which the Parties may mutually agree, SRTA and DB Team shall consult concerning the estimated financial and schedule impacts.

**14.1.3** Within thirty (30) days following SRTA's delivery to DB Team of the Request for Change Proposal, DB Team shall provide SRTA with a written response as to whether, in DB Team's opinion, the proposed change constitutes a SRTA Change, will impact DB Team's costs and/or will impact DB Team's schedule, and if so, a detailed assessment of the cost and schedule impact of the proposed SRTA Change, including the following:

**14.1.3.1** DB Team's detailed estimate of the impacts on costs of carrying out the proposed SRTA Change;

**14.1.3.2** The effect of the proposed SRTA Change on the Project Schedule, including achievement of the Milestone Schedule Deadlines, taking into consideration DB Team's duty to mitigate any delay to the extent reasonably practicable; and

**14.1.3.3** Any other relevant information related to carrying out the proposed SRTA Change.

**14.1.4** SRTA shall be entitled, but not required, to obtain, from a qualified independent consultant of SRTA's choosing, a report prepared in accordance with Good Industry Practice as to the proposed SRTA Change related to the Design Work or the Construction Work, including recommendations and comments concerning DB Team's estimate of the cost impacts and projected impact on the Project Schedule and Milestone Schedule Deadlines. SRTA shall pay for the work of any such consultant.

**14.1.5** SRTA and DB Team, giving due consideration to any such report and study as may be commissioned by SRTA, shall exercise good faith efforts to negotiate a mutually acceptable Supplemental Agreement, including adjustment of the Project Schedule and Milestone Schedule Deadlines, any Compensation Amount to which DB Team is entitled, and the timing and method for payment of any Compensation Amount, in accordance with Article 13.2.

**14.1.6** If SRTA and DB Team are unable to reach agreement on a Supplemental Agreement, SRTA may, in its sole discretion, deliver to DB Team a Directive Letter pursuant to Article 14.3.1 directing DB Team to proceed with the performance of the Work in question notwithstanding such disagreement. Upon receipt of such Directive Letter, pending final resolution of the relevant Supplemental Agreement according to the Dispute Resolution Procedures, (a) DB Team shall implement and perform the Work in question as directed by SRTA and (b) SRTA will make interim payment(s) to DB Team on a monthly basis for the reasonable documented costs of the Work in question subject to Exhibit 7, subject to subsequent adjustment through the Dispute Resolution Procedures.

**14.1.7** SRTA shall be responsible for payment of the Compensation Amount agreed upon or determined through the Dispute Resolution Procedures, through one of the payment mechanisms set forth in Article 13.2.7, and the Project Schedule and Milestone Deadlines shall be adjusted as agreed upon or determined through the Dispute Resolution Procedures, and in accordance with Article 13.1, to reflect the effects of the Supplemental Agreement. .

## **14.2 DB Team Changes**

**14.2.1** DB Team may request SRTA to accept modifications to the Technical Provisions or Technical Documents by submittal of a written Change Request using a form accepted by SRTA. The Change Request shall set forth DB Team's detailed estimate of impacts on costs and schedule attributable to the requested change.

**14.2.2** SRTA, in its sole discretion, may accept or reject any Change Request proposed by DB Team, provided that SRTA will accept a Change Request necessary to bring the Technical Provisions or Technical Documents into compliance with applicable Law. SRTA may condition its acceptance on new or a modification of compensation for SRTA under this Agreement in order to benefit equally in the estimated net cost savings and revenue benefit, if any, attributable to the proposed change. If SRTA accepts such change, DB Team shall execute a Supplemental Agreement and shall implement such change in accordance with the Supplemental Agreement, applicable Technical Provisions, Technical Documents, the Management Plans, Good Industry Practice, and all applicable Laws.

**14.2.3** DB Team shall be solely responsible for payment of any increased costs and for any Project Schedule delays or other impacts resulting from a DB Team proposed Change Request, other than on account of a Compensation Event or Relief Event accepted by SRTA. If

the Change Request results in a decrease in the costs of designing, constructing or operating the Project, the savings in costs shall be allocated between DB Team and SRTA as set forth in the Supplemental Agreement.

**14.2.4** DB Team may implement and permit a Utility Owner to implement, without a Change Request or Supplemental Agreement, changes to a Utility Adjustment design that do not vary from the Technical Provisions or Technical Documents, but such changes are subject either to SRTA's acceptance as part of a Utility Work Plan as provided in Section 6.3.4 of the Technical Provisions.

**14.2.5** No Change Request shall be required to implement any change to the Work that is not specifically regulated or addressed by the DB Documents or applicable Law.

**14.2.6** Certain minor changes without significant cost savings or revenue benefits may be accepted in writing by SRTA, and in such event shall not require a Supplemental Agreement. Any other change in the requirements of the DB Documents shall require a Supplemental Agreement.

### **14.3 Directive Letters**

**14.3.1** SRTA may at any time issue a Directive Letter to DB Team regarding any matter for which a Supplemental Agreement can be issued or in the event of any Dispute regarding the interpretation of requirements, scope of the Work, or whether DB Team has performed in accordance with the requirements of the DB Documents. The Directive Letter will state that it is issued under this Article 14.3, will describe the Work in question and will state the basis for determining compensation, if any. Subject to Article 14.1.6, DB Team shall proceed immediately as directed in the letter, pending the execution of a formal Supplemental Agreement (or, if the letter states that the Work is within DB Team's original scope of Work or is necessary to comply with the requirements of the DB Documents, DB Team shall proceed with the Work as directed but shall have the right to assert a Claim that a SRTA Change has occurred).

**14.3.2** The fact that a Directive Letter was issued by SRTA shall not be considered evidence that in fact a SRTA Change occurred. The determination whether a SRTA Change in fact occurred shall be based on an analysis of the original requirements of the DB Documents and a determination as to whether the Directive Letter in fact constituted a change in those requirements.

### **14.4 Final Relief Event And Compensation Event Determinations**

**14.4.1** Any final Relief Event Determination and/or final Compensation Event Determination that has been mutually accepted by SRTA and DB Team shall be set forth in a Supplemental Agreement. Such Supplemental Agreement shall provide for modification of the Contract Time and the Project Schedule, including to the extent so established by such Relief Event Determination, the Milestone Schedule Deadlines, and modification of the Contract Sum pursuant to any such Compensation Event Determination, as the case may be.

### **14.5 Adjustments to Maximum Annual Cumulative Payment Cap for Changes**

**14.5.1** 14.5.1 Where the amounts to become due on account of any Supplemental Agreement or Change Order will be in excess of the Maximum Annual Cumulative Payment Cap remaining, then the Maximum Annual Cumulative Payment Cap shall also be adjusted by

Supplemental Agreement or Change Order to provide for payment of the same as and when required.

## **Article 15 REPRESENTATIONS AND COVENANTS**

### **15.1 DB Team Representations and Covenants**

DB Team hereby represents to and covenants with SRTA as follows:

**15.1.1** During all periods necessary for the performance of the Work, DB Team and its Contractor(s) will maintain all required authority, license status, professional ability, skills and capacity to perform the Work.

**15.1.2** As of the Effective Date, DB Team has evaluated the constraints affecting design and construction of the Project, including the Property, the Existing Right of Way and Required Right of Way limits as well as the conditions of the Environmental Documents, and has reasonable grounds for believing and does believe that the Project can be designed and built within such constraints.

**15.1.3** Except as to parcels that SRTA or GDOT lacked title or access to prior to the Effective Date, DB Team, in accordance with Good Industry Practice and the requirements of the DB Documents, shall have examined the Site and surrounding locations, performed appropriate field studies and geotechnical investigations of the Site, investigated and reviewed available public and private records, and undertook other activities sufficient to familiarize itself with surface conditions and subsurface conditions, including the presence of Utilities, Hazardous Materials, contaminated groundwater, archeological, paleontological and cultural resources, and Threatened or Endangered Species, affecting the Site or surrounding locations; and as a result of such review, inspection, examination and other activities DB Team is familiar with and accepts the physical requirements of the Work, subject to SRTA's obligations regarding Hazardous Materials under Article 7.8 and Exhibit 11 and DB Team's rights to seek relief under Article 13.

**15.1.4** DB Team has familiarized itself with the requirements of any and all applicable Laws, including with limitation O.C.G.A. §48-13-30, et. seq., and the conditions of any required Governmental Approvals prior to entering into this Agreement. Except as specifically permitted under Article 13 or Article 14, DB Team shall be responsible for complying with the foregoing at its sole cost and without any additional compensation or time extension on account of such compliance, regardless of whether such compliance would require additional time for performance or additional labor, equipment and/or materials not expressly provided for in the DB Documents. As of the Effective Date, DB Team has no reason to believe that any Governmental Approval required to be obtained by DB Team will not be granted in due course and thereafter remain in effect so as to enable the Work to proceed in accordance with the DB Documents.

**15.1.5** All Work furnished by DB Team will be performed by or under the supervision of Persons who hold all necessary, valid licenses to practice in the State, by personnel who are skilled, experienced and competent in their respective trades or professions, who are professionally qualified to perform the Work in accordance with the DB Documents and who shall assume professional responsibility for the accuracy and completeness of the Design Documents, Construction Documents and other documents prepared or checked by them.

**15.1.6** As of the Effective Date, DB Team is a Corporation duly organized and validly existing under the laws of Georgia, has the requisite power and all required licenses to carry on

its present and proposed activities, and has full power, right and authority to execute and deliver the DB Documents, Principal Project Documents as and to the extent applicable, and to perform each and all of the obligations of DB Team provided for herein and therein. DB Team is duly qualified to do business, and is in good standing, in the State as of the Effective Date, and will remain duly qualified and in good standing throughout the term of this Agreement and for as long thereafter as any obligations remain outstanding under the DB Documents.

**15.1.7** The execution, delivery and performance of the DB Documents, and all other Principal Project Documents to which DB Team is (or will be) a party have been (or will be) duly authorized by all necessary corporate action of DB Team; each Person executing the DB Documents and all other such Project related documents, on behalf of DB Team has been (or at the time of execution will be) duly authorized to execute and deliver each such document on behalf of DB Team; and the DB Documents, and all such other Project related documents have been (or will be) duly executed and delivered by DB Team.

**15.1.8** Neither the execution and delivery by DB Team of the DB Documents and the Principal Project Documents to which DB Team is (or will be) a party, nor the consummation of the transactions contemplated hereby or thereby, is (or at the time of execution will be) in conflict with or has resulted or will result in a default under or a violation of the governing instruments of DB Team.

**15.1.9** As of the Effective Date, each of the DB Documents, the Principal Project Documents to which DB Team is (or will be) a party constitutes (or at the time of execution and delivery will constitute) the legal, valid and binding obligation of DB Team, enforceable against DB Team and, if applicable, each member of DB Team, in accordance with its terms, subject only to applicable bankruptcy, insolvency and similar laws affecting the enforceability of the rights of creditors generally and the general principles of equity.

**15.1.10** As of the Effective Date, there is no action, suit, proceeding, investigation or litigation pending and served on DB Team which challenges DB Team's authority to execute, deliver or perform, or the validity or enforceability of, the DB Documents, and all other Project related documents to which DB Team is a party, or which challenges the authority of DB Team official executing the DB Documents, or the Principal Project Documents. DB Team has disclosed to SRTA and GDOT prior to the Effective Date any pending and un-served or threatened action, suit, proceeding, investigation or litigation with respect to such matters of which DB Team is aware.

**15.1.11** As of the Proposal Due Date, DB Team disclosed to SRTA in writing all organizational conflicts of interest of DB Team and its Contractors of which DB Team was actually aware; and between the Proposal Due Date and the Effective Date, DB Team has not obtained knowledge of any additional organizational conflict of interest, and there have been no organizational changes to DB Team or its Contractors identified in its Proposal, which have not been accepted in writing by SRTA. For this purpose, organizational conflict of interest has the meaning set forth in Chapter I of the RFP (Instructions to Proposers).

**15.1.12** To the extent the Design-Build Contractor is not the DB Team, DB Team represents and warrants, as of the effective date of the Design-Build Contract, as follows: (a) the Design-Build Contractor is duly organized, validly existing and in good standing under the laws of the state of its organization; (b) with respect to Persons that individually hold more than ten percent (10%) of the capital stock of the Design-Build Contractor (including options, warrants

and other rights to acquire capital stock), such stock is owned by the Persons whom DB Team has set forth in a written certification delivered to SRTA or GDOT prior to the Effective Date; (c) the Design-Build Contractor has the power and authority to do all acts and things and execute and deliver all other documents as are required to be done, observed or performed by it in connection with its engagement by DB Team; (d) the Design-Build Contractor has all necessary expertise, qualifications, experience, competence, skills and know-how to perform the design and construction of the Project in accordance with the DB Documents; and (e) the Design-Build Contractor is not in breach of any applicable Law that would have a material adverse effect on the design and construction of the Project.

**15.1.13** The execution and delivery by DB Team of this Agreement and all other Project related documents to which DB Team is a party will not result, at the time of execution, in a default under any other agreement or instrument to which it is a party or by which it is bound.

**15.1.14** The execution and delivery by DB Team of the DB Documents and performance by DB Team of its obligations thereunder will not conflict with any Laws applicable to DB Team that are valid and in effect on the Effective Date.

**15.1.15** The Design-Build Contractor shall comply in full with the provisions of Code Sections 50-24-1 through 50-24-6 of the Official Code of Georgia Annotated, relating to the "Drug-free Workplace Act"

**15.1.16** No event which, with the passage of time or the giving of notice, would constitute a DB Team Default has occurred and has not yet been cured.

**15.1.17** Reserved.

**15.1.18** DB Team certifies, by entering into this Agreement, that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from entering into this Agreement by any federal agency or by any department, agency or political subdivision of the State, including GDOT and SRTA. For purposes of this Section 15.1.17, the term "principal" for purposes of this Agreement means an officer, director, owner, partner, Key Personnel, employee, or other person with primary management or supervisory responsibilities, or a person who has a critical influence on or substantive control over the operations of DB Team.

**15.1.19** DB Team represents, warrants and certifies by entering into this Agreement, that neither it nor its Affiliates is presently in arrears in payment of Taxes, permit fees or other statutory, regulatory or judicially required payments to SRTA, GDOT or the State.

**15.1.20** DB Team acknowledges and agrees, that as a requirement to enter into the DB Documents, the Proposal documents delivered pursuant to the RFP constitute all the information used in the preparation of the Proposal, and that no other Proposal preparation information will be considered in the resolution of Disputes and Claims. The DB Team also agrees that nothing in the Proposal documents delivered pursuant to the RFP shall change or modify the terms or conditions of the DB Documents.

## **15.2 SRTA Representations and Covenants**

SRTA hereby represents to and covenants with DB Team as follows:

**15.2.1** As of the Effective Date, SRTA has full power, right and authority to execute, deliver and perform the DB Documents and the Principal Project Documents to which SRTA is a party and to perform each and all of the obligations of SRTA provided for herein and therein.

**15.2.2** As of the Effective Date, each of the DB Documents and the Principal Project Documents to which SRTA is (or will be) a party constitutes (or at the time of execution and delivery will constitute) the legal, valid and binding obligation of SRTA, enforceable against SRTA in accordance with its terms, subject only to applicable bankruptcy, insolvency and similar laws affecting the enforceability of the rights of creditors generally and the general principles of equity.

**15.2.3** The execution and delivery by SRTA of this Agreement and the Principal Project Documents to which SRTA is a party will not result, at the time of execution, in a default under any other agreement or instrument to which it is a party or by which it is bound.

**15.2.4** The execution and delivery by SRTA of the DB Documents and performance by SRTA of its obligations thereunder will not conflict with any Laws applicable to SRTA that are valid and in effect on the Effective Date.

**15.2.5** SRTA, pursuant and subject to the Intergovernmental Agreement, has authorized and appointed GDOT to act as SRTA's project manager, representative, and agent for the purpose of causing the acquisition, design, building, and financing of the Project.

**15.2.6** As of the Effective Date, there is no action, suit, proceeding, investigation or litigation pending and properly served on SRTA, or, to SRTA's knowledge, without obligation to investigate, threatened, which challenges SRTA's authority to execute, deliver or perform, or the validity or enforceability of, the DB Documents, and all other Project related documents to which SRTA is a party.

**15.2.7** As of the Effective Date, there has been no amendment, variation, modification or waiver of any terms of the Joint Resolution since its adoption.

**15.2.8** As of the Effective Date, there has been no amendment, variation, modification or waiver of any terms of the Intergovernmental Agreement since its execution.

**15.2.9** SRTA shall promptly notify DB Team if it becomes aware of any amendment, variation, modification or waiver of any terms of the Joint Resolution or the Intergovernmental Agreement.

**15.2.10** SRTA shall at all times seek to enforce its rights under the Joint Resolution and the Intergovernmental Agreement to the extent necessary to fulfill its obligations under this Agreement.

### **15.3 Survival of Representations and Covenants**

The representations and covenants of DB Team and SRTA contained herein shall survive expiration or earlier termination of this Agreement.

### **15.4 Special Remedies for Mutual Breach of Representations and Covenants**

Notwithstanding any other provision of this Agreement, if there exists or occurs any circumstance or event that constitutes or results in a concurrent breach of any of the

representations or covenants set forth in this Article 15 by both DB Team and SRTA but does not also constitute or result in any other breach or default by either Party, then such breaches shall not form the basis for a Compensation Event or damage claim by SRTA against DB Team. Instead, the only remedies shall be for the Parties to take action to rectify or mitigate the effects of such circumstance or event, to pursue severance and reformation of the DB Documents and Principal Project Documents as set forth in Article 24.13, or Termination by Court Ruling as set forth in Article 19.11 and Exhibit 20.

## **Article 16 INSURANCE; PERFORMANCE SECURITY; INDEMNITY**

### **16.1 Insurance Policies and Coverage**

#### **16.1.1 Insurance Certificates and Additional Insured Endorsements Requirements**

**16.1.1.1** Certificates of Insurance. The DB Team shall procure the insurance coverages identified below at the DB Team's expense and shall furnish SRTA an insurance certificate listing the SRTA and GDOT as the certificate holder and as an additional insured. Certificates of Insurance shall be on a form approved for use in the State of Georgia by the Commissioner of Insurance that provides the following:

- (a) Name and address of authorized agent
- (b) Name and address of insured
- (c) Name of insurance company(ies)
- (d) Description of policies
- (e) Policy number(s)
- (f) Policy Period(s)
- (g) Limits of liability
- (h) Name and address of SRTA and GDOT as certificate holder
- (i) Project Name and Number
- (j) Signature of authorized agent
- (k) Telephone number of authorized agent
- (l) Mandatory thirty day notice of cancellation or non-renewal (except ten days for non-payment).

**16.1.2 Insurer Qualifications, Insurance Requirements:** Each of the insurance coverages required below (i) shall be issued by a company licensed by the Insurance Commissioner to transact the business of insurance in the State of Georgia for the applicable line of insurance, and (ii) shall be an insurer (or, for qualified self-insureds or group self-insureds, a specific excess insurer providing statutory limits) with a Best Policyholders Rating of "A-" or better and with a financial size rating of Class V or larger. Each such policy shall contain the following provisions:

**16.1.2.1** The insurance company agrees that the policy shall not be canceled, changed, allowed to lapse or allowed to expire until thirty days after the SRTA has received written notice thereof, as evidenced by return receipt of certified mail or statutory mail, or until such time as other insurance coverage providing protection equal to protection called for in this Contract shall have been received, accepted and acknowledged by SRTA. Such notice shall be valid only as to the Project as shall have been designated by Project Number and Name in said notice.

**16.1.2.2** The policy shall not be subject to invalidation as to any insured by reason of any act or omission of another insured or any of its officers, employees, agents or other representatives ("Separation of Insureds").

**16.1.2.3** Each Insurer is hereby notified that the statutory requirement that the Attorney General of Georgia shall represent and defend the Indemnities remains in full force and effect and is not waived by issuance of any policy of insurance. In the event of litigation, any settlement on behalf of the indemnities must be expressly approved by the Attorney General. The DB Team and its insurance carrier may retain, but are not obligated to retain, counsel to assist with the defense of the Indemnities, in which case there will be mutual cooperation between the Attorney General and such counsel. See O.C.G.A. §45-15-12.

**16.1.2.4** All deductibles shall be paid for by the DB Team.

**16.1.2.5** The maximum deductible, except for Worker's Compensation qualified self-insurers or group self-insurers, in any policy shall not exceed \$100,000.00.

**16.1.3 Required Insurance Coverages.** The DB Team also agrees to purchase insurance and have the authorized agent state on the insurance certificate that the DB Team has purchased the following types of insurance coverages, consistent with the policies and requirements of O.C.G.A. §50-21-37. The minimum required coverages and liability limits are as follows:

**16.1.3.1 Workers' Compensation Insurance.** The DB Team agrees to provide at a minimum Workers' Compensation coverage in accordance with the statutory limits as established by the General Assembly of the State of Georgia. A group insurer must submit a certificate of authority from the Insurance Commissioner approving the group insurance plan. A self-insurer must submit a certificate from the Georgia Board of Workers' Compensation stating the DB Team qualifies to pay its own workers' compensation claims. The DB Team shall require all Subcontractors performing work under this Agreement to obtain an insurance certificate showing proof of Workers' Compensation Coverage and shall submit a certificate on the letterhead of the DB Team in the following language:

*This is to certify that all subcontractors performing work on this Project are covered by their own workers' compensation insurance or are covered by the DB Team's workers' compensation insurance.*

**16.1.3.2 Employers' Liability Insurance.** The DB Team shall also maintain Employer's Liability Insurance Coverage with limits of at least:

- (i) Bodily Injury by Accident - \$1,000,000 each accident; and
- (ii) Bodily Injury by Disease - \$1,000,000 each employee.

The DB Team shall require all Subcontractors performing work under this Contract to obtain an insurance certificate showing proof of Employers Liability Insurance Coverage and shall submit a certificate on the letterhead of the DB Team in the following language:

*This is to certify that all subcontractors performing work on this Project are covered by their own Employers Liability Insurance Coverage or are covered by the DB Team's Employers Liability Insurance Coverage.*

**16.1.3.3 Commercial General Liability Insurance.** The DB Team shall provide Commercial General Liability Insurance (2004 ISO Occurrence Form or equivalent) that shall include, but need not be limited to, coverage for bodily injury and property damage arising from premises and operations liability, products and completed operations liability, blasting and explosion, collapse of structures, underground damage, personal injury liability and contractual liability. The CGL policy must include separate aggregate limits per Project and shall provide at a minimum the following limits:

| <i>Coverage</i>                      | <i>Limit</i>                   |
|--------------------------------------|--------------------------------|
| 1. Premises and Operations           | \$ 1,000,000.00 per Occurrence |
| 2. Products and Completed Operations | \$ 1,000,000.00 per Occurrence |
| 3. Personal Injury                   | \$ 1,000,000.00 per Occurrence |
| 4. Contractual                       | \$ 1,000,000.00 per Occurrence |
| 5. General Aggregate                 | \$ 2,000,000.00 per Project    |

Additional Requirements for Commercial General Liability Insurance are shown below at Paragraph 16.1.3.6.

**16.1.3.4 Commercial Business Automobile Liability Insurance.** The DB Team shall provide Commercial Business Automobile Liability Insurance that shall include coverage for bodily injury and property damage arising from the operation of any owned, non-owned, or hired automobile. The Commercial Business Automobile Liability Insurance Policy shall provide not less than \$1,000,000 Combined Single Limits for each occurrence. Additional Requirements for Commercial Business Automobile Liability Insurance are shown below at Paragraph 16.1.3.6.

**16.1.3.5 Commercial Umbrella Liability Insurance.** The DB Team shall provide a Commercial Umbrella Liability Insurance to provide excess coverage above the Commercial General Liability, Commercial Business Automobile Liability and the Workers' Compensation and Employers' Liability to satisfy the minimum limits set forth herein. The umbrella coverage shall follow form with the Umbrella limits required as follows:

| <i>For Contract Amounts Less Than \$5,000,000.00:</i> | <i>For Contract Amounts Equal to or Greater than \$5,000,000:</i> |
|---|---|
| \$ 2,000,000 per Occurrence                           | \$2,000,000 per Occurrence  |
| \$ 4,000,000 Aggregate                                | \$10,000,000 Aggregate  |

Additional Requirements for Commercial Umbrella Liability Insurance are shown below at Paragraph 16.1.3.6.

**16.1.3.6 Additional Requirements for Commercial Policies in Paragraphs 16.1.3.3 through 16.1.3.5**

- (a) The DB Team shall cause its insurer to issue an Additional Insured Endorsement naming the officers, members, and employees of SRTA and GDOT as additional Insureds.
- (b) The policy must be on an "occurrence" basis.

**16.1.3.7 Professional Liability (Errors and Omissions) Insurance.** Limits shall not be less than the following:

- (a) Valuable Papers: Insurance in an amount sufficient to assure the restoration of any plans, drawings, field notes or other similar data relating to the work covered by the Project is required. Insurance is to be maintained in full force and effect during the life of the Agreement.
- (b) Professional Liability (Errors and Omissions): Insurance in an amount not less than one million dollars (\$1,000,000.00) per claim (with a maximum of two hundred and fifty thousand (\$250,000) deductible per claim) during the agreement term and for a period of at least five (5) years after this Agreement is closed is required. Such a policy is to cover all of the DB Team's professional liabilities, whether occasioned by the by the DB Team, his employees, subcontractors or other agents arising out of services performed under or in accordance with this Agreement.
- (c) This form should be submitted to the SRTA along with the Contract at the Post Award meeting.

**16.1.3.8 Maximum Deductible**. No policies shall specify a deductible of more than \$250,000 per claim. If demanded in writing by the insurer and with the SRTA's approval, the deductible limit may be increased to an amount not in excess of the limit established for Design Professionals under the usual deductible guidelines of the insurer.

**16.1.3.9 Disposition of Insurance Documents**. One original certificate of insurance with all endorsements attached must be deposited with SRTA for each insurance policy required.

**16.1.4 Termination of Obligation to Insure**. Unless otherwise expressly provided to the contrary, the obligation to insure as provided herein shall not terminate until SRTA shall have executed the certificate of Final Acceptance.

**16.1.5 Failure of Insurers**. The DB Team is responsible for any delay resulting from the failure of his insurance carriers to furnish proof of proper coverage in the prescribed form.

## **16.2 Performance and Payment Security**

DB Team shall furnish Performance & Payment Bonds ("P&P Bonds") meeting the requirements of this Article 16.2 as performance and payment security for the Work.

### **16.2.1 P&P Bonds**

**16.2.1.1** The DB Team shall furnish, or cause the furnishing of, P&P Bonds, DB Team shall obtain and deliver P&P Bonds in such amount as required pursuant to the terms set forth in the Standard Specification Section 103.05, identifying DB Team as the P&P Obligor, securing DB Team's obligations to perform the Work and to ensure that payments owing to Claimants are made with respect to such Work.

**16.2.1.2** The P&P Bonds shall be issued by a properly licensed and U.S. Treasury listed surety(ies) that have not less than A or better and Class VIII by A.M. Best and Company's Insurance Reports Key Rating Guide, and listed on Treasury Department Circular 570, and be on the list of companies approved by the State for at least three of the last five (5) years from the date of the proposed bond issuance. If P&P Bonds are issued by more than one surety, such P&P Bonds shall be executed on a joint and several basis.

### **16.3 Prosecution of Claims**

**16.3.1** Unless otherwise directed by SRTA in writing with respect to SRTA's insurance claims and subject to the requirements of Articles 16.5 and 16.6 below, DB Team shall be responsible for reporting and processing all potential claims by SRTA or DB Team against the Insurance Policies required hereunder. DB Team agrees to report timely to the insurer(s) under such Insurance Policies any and all matters which may give rise to an insurance claim by DB Team or SRTA or another Indemnified Party and to promptly and diligently pursue such insurance claims in accordance with the claims procedures specified in such Insurance Policies, whether for defense or indemnity or both. DB Team shall enforce all legal rights against the insurer under the applicable Insurance Policies and applicable Laws in order to collect thereon, including pursuing necessary litigation and enforcement of judgments, provided that DB Team shall be deemed to have satisfied this obligation if a judgment is not collectible through the exercise of lawful and diligent means.

**16.3.2** SRTA agrees to promptly notify DB Team of SRTA's incidents, potential claims against SRTA, and matters which may give rise to an insurance claim against SRTA, to tender to the insurer SRTA's defense of the claim under such Insurance Policies, and to cooperate with DB Team as necessary for DB Team to fulfill its duties hereunder.

**16.3.3** If in any instance DB Team has not performed its obligations respecting insurance coverage set forth in the DB Documents or is unable to enforce and collect any such insurance for failure to assert claims in accordance with the terms of the Insurance Policies or to prosecute claims diligently, then for purposes of determining DB Team's liability and the limits thereon or determining reductions in compensation due from SRTA to DB Team on account of available insurance, DB Team shall be treated as if it has elected to self-insure up to the full amount of insurance coverage which would have been available had DB Team performed such obligations and not committed such failure. Nothing in this Article 16.3.3 or elsewhere in this Article 16.3 shall be construed to treat DB Team as electing to self-insure where DB Team is unable to collect due to the bankruptcy or insolvency of any insurer which at the time the Insurance Policy is written meets the rating qualifications set forth in this Article 16.3.

**16.3.4** DB Team shall not settle or accept any settlement of any insurance claim which is in excess of \$100,000 or which involves any claim that has been asserted against SRTA, GDOT, the State or any agency or department thereof, without prior written approval of SRTA, provided that DB Team shall not be required to obtain SRTA approval for workers compensation claims.

**16.3.5** If in any instance DB Team has not promptly performed its obligation to report to applicable insurers and process any potential insurance claim tendered by SRTA or another Indemnified Party, then SRTA or the other Indemnified Party may, but is not obligated to, (a) notify DB Team in writing of SRTA's intent to report the claim directly with the insurer and thereafter process the claim, and (b) proceed with reporting and processing the claim if SRTA or the other Indemnified Party does not receive from DB Team, within ten (10) days after so notifying DB Team, written proof that DB Team has reported the claim directly to the insurer. SRTA or the other Indemnified Party may dispense with such notice to DB Team if SRTA or the other Indemnified Party has a good faith belief that more rapid reporting is needed to preserve the claim.

### **16.4 Reserved**

## **16.5 Indemnity by DB Team**

**16.5.1** Subject to Article 16.5.2, DB Team shall release, protect, defend, indemnify and hold harmless the Indemnified Parties from and against any and all Third Party Claims and Third Party Losses arising out of, relating to or resulting from:

**16.5.1.1** The breach or alleged breach of the DB Documents by DB Team;

**16.5.1.2** The failure or alleged failure by any DB Team-Related Entity to comply with the Governmental Approvals, any applicable Environmental Laws or other Laws (including Laws regarding Hazardous Materials Management);

**16.5.1.3** Any alleged patent or copyright infringement or other allegedly improper appropriation or use by any DB Team-Related Entity of trade secrets, patents, proprietary information, know-how, copyright rights or inventions in performance of the Work, or arising out of any use in connection with the Project of methods, processes, designs, information, or other items furnished or communicated to SRTA, GDOT or another Indemnified Party pursuant to the DB Documents; provided that this indemnity shall not apply to any infringement resulting from SRTA's or GDOT's failure to comply with specific written instructions regarding use provided to SRTA or GDOT by DB Team;

**16.5.1.4** The actual or alleged culpable act or omission, culpable error or misconduct of any DB Team-Related Entity in or associated with performance of the Work;

**16.5.1.5** Any and all claims by any governmental or taxing authority claiming taxes based on gross receipts, purchases or sales, the use of any property or income of any DB Team-Related Entity with respect to any payment for the Work made to or earned by any DB Team-Related Entity;

**16.5.1.6** Any and all stop notices, liens and claims filed in connection with the Work, including all expenses and attorneys', accountants' and expert witness fees and costs incurred in discharging any stop notice, lien or claim, and any other liability to Contractors, laborers and Suppliers for failure to pay sums due for their work, services, materials, goods, equipment or supplies, including interest and attorney's fees, provided that SRTA is not in default in payments owing (if any) to DB Team with respect to such Work;

**16.5.1.7** Any actual or threatened DB Team Release of Hazardous Materials;

**16.5.1.8** The claim or assertion by any other developer or contractor that any DB Team-Related Entity interfered with or hindered the progress or completion of work being performed by the other contractor or developer, or failed to cooperate reasonably with the other developer or contractor, so as to cause inconvenience, disruption, delay or loss, except where the DB Team-Related Entity was not in any manner engaged in the management, prosecution, protection or performance of the Work;

**16.5.1.9** Any dispute or claim by a Utility Owner related to any DB Team-Related Entity's performance of, or failure to perform, the obligations under any Standard Utility Agreement;

**16.5.1.10** (a) Any DB Team breach of or failure to perform an obligation that SRTA or GDOT owes to a third Person, including, but not limited to, Governmental Entities, under

Law or under any agreement between SRTA and GDOT and a third Person, where SRTA or GDOT has delegated performance of the obligation to DB Team pursuant to the terms of the DB Documents, or (b) the negligent or willful acts or omissions of any DB Team-Related Entities which render SRTA or GDOT unable to perform or abide by an obligation that SRTA or GDOT owes to a third Person, including, but not limited to, Governmental Entities, under any agreement between SRTA or GDOT and a third Person, where the agreement is previously disclosed or known to DB Team;

**16.5.1.11** The fraud, bad faith, arbitrary or capricious acts, willful misconduct, negligence or violation of Law or contract by DB Team or Design-Build Contractor or any Affiliate of either in connection with DB Team's performance of real property acquisition services under the DB Documents;

**16.5.1.12** Inverse condemnation, trespass, nuisance, interference with use and enjoyment of property or similar taking of or harm to real property by reason of (a) the failure of any DB Team-Related Entity to comply with Good Industry Practice, requirements of the DB Documents, Management Plans or Governmental Approvals, (b) the intentional misconduct or negligence of any DB Team-Related Entity, or (c) the entry onto or encroachment upon another's property by any DB Team-Related Entity;

**16.5.1.13** If applicable, any violation of any federal or state securities or similar law by any DB Team-Related Entity;

**16.5.1.14** Errors, inconsistencies or other defects in the design or construction of the Project and/or of Utility Adjustments, or the Work, included in the Design Work and/or Construction Work; or

**16.5.1.15** Any claim asserted or alleged against SRTA or GDOT in contradiction of Article 6.3.12.

**16.5.2** Subject to the releases and disclaimers herein, including all the provisions set forth in Article 6.3.8, DB Team's indemnity obligation shall not extend to any Third Party Claims and Third Party Losses to the extent caused or contributed to by:

**16.5.2.1** The sole negligence, recklessness or willful misconduct, bad faith or fraud of the Indemnified Party;

**16.5.2.2** SRTA's breach of any of obligations under the DB Documents, subject to Article 6.3.12;

**16.5.2.3** An Indemnified Party's violation of any Laws or Governmental Approvals; or

**16.5.2.4** Any material defect inherent in a prescriptive design, or construction specification included in the DB Documents that was not drafted or provided by DB Team under this Agreement, but only where prior to occurrence of the Third Party Loss DB Team complied with such specification and did not actually know, or would not reasonably have known, while exercising reasonable diligence, that it was deficient or, if DB Team actually knew of the deficiency, unsuccessfully sought SRTA's waiver or acceptance of a Change Request from such specification.

**16.5.2.5** any Compensation Event or Relief Event.

**16.5.3** In claims by an employee of DB Team, a Contractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under this Article 16.5 shall not be limited by a limitation on the amount or type of damages, compensation or benefits payable by or for DB Team or a Contractor under workers' compensation, disability benefit or other employee benefits laws.

**16.5.4** For purposes of this Article 16.5, "Third Party Claim" includes a claim, dispute, disagreement, cause of action, demand, suit, action, judgment, investigation, or legal or administrative proceeding which (a) is asserted, initiated or brought by any Indemnified Party's employee, agent or contractor against an Indemnified Party, (b) is within the scope of the indemnities and (c) is not covered by the Indemnified Party's worker's compensation program. For purposes of this Article 16.5, "Third Party Loss" includes any actual or alleged Loss sustained or incurred by such employee, agent or contractor.

**16.6 Defense and Indemnification Procedures**

**16.6.1** If any of the Indemnified Parties receives notice of a claim that it believes is within the scope of the indemnities under Article 16.5, SRTA shall by writing as soon as practicable after receipt of the claim, (a) inform DB Team of the claim, (b) send to DB Team a copy of all written materials SRTA has received asserting such claim and (c) notify DB Team that should no insurer accept defense of the claim, the Indemnified Party will conduct its own defense unless DB Team accepts the tender of the claim in accordance with Article 16.6.3. As soon as practicable after DB Team receives notice of a claim or otherwise has actual knowledge of a claim, it shall tender the claim in writing to the insurers under all potentially applicable Insurance Policies and comply with all notice requirements contained in such Insurance Policies. SRTA and other Indemnified Parties also shall have the right to tender such claims to such insurers.

**16.6.2** Subject to Article 16.6.4, if the insurer under any applicable Insurance Policy accepts the tender of defense, SRTA and DB Team shall cooperate in the defense as required by the Insurance Policy. If no insurer under potentially applicable Insurance Policies provides defense, then Article 16.6.3 shall apply.

**16.6.3** If the defense is tendered to DB Team, then within thirty (30) days after receipt of the tender it shall notify the Indemnified Party whether it has tendered the matter to an insurer and (if not tendered to an insurer or if the insurer has rejected the tender) shall deliver a written notice stating that DB Team:

**16.6.3.1** Accepts the tender of defense and confirms that the claim is subject to full indemnification hereunder without any "reservation of rights" to deny or disclaim full indemnification thereafter;

**16.6.3.2** Accepts the tender of defense but with a "reservation of rights" in whole or in part, with a detailed statement as to the reasons for the "reservation of rights"; or

**16.6.3.3** Rejects the tender of defense based on a determination that it is not required to indemnify against the claim under the terms of this Agreement, with a detailed statement as to the reasons for the denial.

**16.6.4** If DB Team accepts the tender of defense under Article 16.6.3.1, DB Team acknowledges and agrees (and has caused the insurer to be so notified of the statutory requirements) that the Attorney General of the State shall represent and defend the State, SRTA, GDOT and any officer, director, commissioner or employee of such Indemnified Parties; but SRTA will request that the Attorney General of the State, without limiting the authority of the Attorney General of the State, consider attorneys recommended by DB Team for appointment as Special Assistant Attorney General to represent and defend the referenced Indemnified Parties. DB Team may, at the option of the Attorney General, have the right to participate in the defense of the Indemnified Parties. In the event of litigation, any settlement on behalf of the Indemnified Parties must be expressly approved by the Attorney General of the State. The foregoing shall not relieve DB Team's obligation to bear the fees and costs of defending and settling such claim. During such defense:

**16.6.4.1** DB Team shall fully and regularly inform the Indemnified Party and the Attorney General of the State of the progress of the defense and of any settlement discussions; and

**16.6.4.2** Each Indemnified Party shall fully cooperate in said defense, provide to DB Team all materials and access to personnel it requests as necessary for defense, preparation and trial and which or who are under the control of or reasonably available to the Indemnified Party, and maintain the confidentiality of all communications between it and DB Team concerning such defense.

**16.6.5** If DB Team responds to the tender of defense as specified in Article 16.6.3.2 or Article 16.6.3.3, such Indemnified Parties shall also be represented by the Attorney General of the State who shall otherwise control the defense of such claim, including settlement. The foregoing shall not relieve DB Team from its obligations to bear the fees and costs of defending and settling such claim.

**16.6.6** Even if the Attorney General of the State has appointed counsel selected by DB Team to represent any of the Indemnified Parties, the Attorney General of the State may assume the defense of the applicable Indemnified Parties by delivering to DB Team written notice of such election and the reasons therefor, if the Indemnified Parties, at the time it gives notice of the claim or at any time thereafter, reasonably determines that:

**16.6.6.1** A conflict exists between it and DB Team which prevents or potentially prevents DB Team from presenting a full and effective defense;

**16.6.6.2** DB Team is otherwise not providing an effective defense in connection with the claim; or

**16.6.6.3** DB Team lacks the financial capacity to satisfy potential liability or to provide an effective defense.

**16.6.7** If any of the Indemnified Parties is entitled and elects to conduct its own defense pursuant hereto of a claim for which it is entitled to indemnification, DB Team shall reimburse on a current basis all reasonable costs and expenses any such Indemnified Parties incurs in investigating and defending, including, but not limited to, attorney's fees. In the event the Indemnified Parties are entitled to and elect to conduct their own defense, then:

**16.6.7.1** In the case of a defense conducted under Article 16.6.3.1, it shall have the right to settle or compromise the claim with DB Team's prior written consent, which shall not be unreasonably withheld or delayed;

**16.6.7.2** In the case of a defense conducted under Article 16.6.3.2, it shall have the right to settle or compromise the claim with DB Team's prior written consent, which shall not be unreasonably withheld or delayed, or with approval of the court following reasonable notice to DB Team and opportunity to be heard and without prejudice to the Indemnified Party's rights to be indemnified by DB Team; and

**16.6.7.3** In the case of a defense conducted under Article 16.6.3.3, it shall have the right to settle or compromise the claim without DB Team's prior written consent and without prejudice to its rights to be indemnified by DB Team.

**16.6.8** A refusal of, or failure to accept, a tender of defense, as well as any Dispute over whether an Indemnified Party which has assumed control of defense is entitled to do so under Article 16.6.6, shall be submitted in accordance with the Dispute Resolution Procedures. DB Team shall be entitled to contest an indemnification claim and pursue, through the Dispute Resolution Procedures, recovery of defense and indemnity payments it has made to or on behalf of the Indemnified Party.

**16.6.9** In determining responsibilities and obligations for defending suits pursuant to this Article 16.6, specific consideration shall be given by the Parties to the following factors: (a) the party performing the activity in question; (b) the location of the activity and Incident; (c) contractual arrangements then governing the performance of the activity; and (d) allegations of respective fault contained in the claim.

**16.6.10** Notwithstanding anything to the contrary set forth in Article 16.5 or this Article 16.6, the Attorney General of the State of Georgia is the only counsel authorized to represent SRTA, GDOT or any State affiliated agencies or departments. In the event that there is any potential conflict of interest that could reasonably arise in the representation of any Indemnified Party and DB Team in the defense of any action, suit or proceeding pursuant to Article 16.5 above or in the event that state or local law requires the use of specific counsel, (i) such Indemnified Party may elect in its sole and absolute discretion whether to waive such conflict of interest, and (ii) unless such Indemnified Party elects to waive such conflict of interest, or in any event if required by state or local law, then the counsel designated by the Indemnified Party shall solely represent such Indemnified Party and, if applicable, DB Team shall retain its own separate counsel, each at DB Team's sole cost and expense. The Attorney General of the State of Georgia will consider counsel recommended by DB Team for appointment as a Special Assistant Attorney General.

**16.6.11** If a suit or proceeding based on a claimed infringement of a patent or copyright is brought against any of the Indemnified Parties, DB Team shall, at its own expense, defend or settle any such suit or proceeding if authorized to do so in writing by the Attorney General of the State of Georgia subject to the obligations of indemnification as set forth in Article 16.5.

**16.6.12** DB Team, subject to Article 16.1.4.4, may settle the claim without the consent or agreement of the Indemnified Parties, unless the settlement (i) would result in injunctive relief or other equitable remedies or otherwise require the Indemnified Parties to

comply with restrictions or limitations that adversely affect or materially impair the reputation and standing of the Indemnified Parties, (ii) would require the Indemnified Parties to pay amounts that DB Team or its insurer does not fund in full, (iii) would not result in the Indemnified Parties full and complete release from all liability to the plaintiffs or Claimants who are parties to or otherwise bound by the settlement, or (iv) directly involves any such Indemnified Parties (in which case the Attorney General of the State of Georgia shall be the only counsel authorized to represent such parties with respect to any such settlement).

## **Article 17      DEFAULT; REMEDIES; CLAIM FOR ADJUSTMENTS AND DISPUTES**

### **17.1      Default by DB Team; Cure Periods**

#### **17.1.1      DB Team Default**

Subject to relief from its performance obligations pursuant to Article 13.1.2.1 and Article 13.2.1.3, DB Team shall be in breach under this Agreement upon the occurrence of any one or more of the following events or conditions (each a “DB Team Default”):

**17.1.1.1**      DB Team (a) fails to begin the applicable Work within thirty (30) days following issuance of NTP 1; (b) fails to satisfy all conditions to issuance of NTP 2 under Article 3.3 by the NTP 2 Conditions Deadline; or (c) fails to satisfy all conditions to commencement of the applicable Construction Work, and fails to commence such Construction Work with diligence and continuity, as the same may be extended pursuant to this Agreement;

**17.1.1.2**      An Abandonment;

**17.1.1.3**      DB Team fails to achieve Substantial Completion by the Substantial Completion Deadline, as the same may be extended pursuant to this Agreement;

**17.1.1.4**      DB Team fails to achieve Final Acceptance by the Final Acceptance Deadline, or fails to achieve such required Elements of the Work by any applicable Milestone Deadline, as any such dates may be extended pursuant to this Agreement;

**17.1.1.5**      Any representation or covenant in the DB Documents made by DB Team, or any certificate, schedule, report, instrument or other document delivered by or on behalf of DB Team to SRTA pursuant to the DB Documents is materially false, materially misleading or materially inaccurate when made or omits material information when made;

**17.1.1.6**      DB Team fails to obtain, provide and maintain any insurance, bonds, or other performance security as and when required under this Agreement for the benefit of relevant parties, or fails to comply with any requirement of this Agreement pertaining to the amount, terms or coverage of the same;

**17.1.1.7**      DB Team makes or attempts to make or suffers a voluntary or involuntary assignment or transfer of all or any portion of this Agreement, the Project or DB Team’s Interest, or there occurs a Change of Control, in violation of Article 21;

**17.1.1.8**      DB Team materially fails to timely observe or perform or cause to be observed or performed any other material covenant, agreement, obligation, term or condition required to be observed or performed by DB Team under the DB Documents (including material failure to perform the Design Work, Construction Work, or any material portion thereof in

accordance with the DB Documents); provided that this Article 17.1.1.8 shall not apply to DB Team Defaults specifically addressed by other provisions of Article 17.1.1;

**17.1.1.9** After exhaustion of all rights of appeal, there occurs any suspension or debarment (distinguished from ineligibility due to lack of financial qualifications), or there goes into effect an agreement for voluntary exclusion, from bidding, proposing or contracting with any federal or State department or agency of (a) DB Team, (b) any member of DB Team with a material financial obligation owing to DB Team for equity or shareholder loan contributions, (c) any Affiliate of DB Team for whom transfer of ownership would constitute a Change of Control, or (d) any Key Contractor whose work is not completed;

**17.1.1.10** DB Team fails to (a) deliver to SRTA any remedial plan as may be required pursuant to Article 17.3.5 or (b) otherwise fails to fully comply with the schedule or specific elements of, or actions required under, any such accepted remedial plan;

**17.1.1.11** DB Team commences a voluntary case seeking liquidation, reorganization or other relief with respect to itself or its debts under any U.S. or foreign bankruptcy, insolvency or other similar Law now or hereafter in effect, seeks the appointment of a trustee, receiver, liquidator, custodian or other similar official of it or any substantial part of its assets; becomes insolvent, or generally does not pay its debts as they become due; admits in writing its inability to pay its debts; makes an assignment for the benefit of creditors; or takes any action to authorize any of the foregoing; or

**17.1.1.12** An involuntary case is commenced against DB Team seeking liquidation, reorganization, dissolution, winding up, a composition or arrangement with creditors, a readjustment of debts or other relief with respect to DB Team or DB Team's debts under any U.S. or foreign bankruptcy, insolvency or other similar Law now or hereafter in effect; seeking the appointment of a trustee, receiver, liquidator, custodian or other similar official of DB Team or any substantial part of DB Team's assets; seeking the issuance of a writ of attachment, execution, or similar process; or seeking like relief, and such involuntary case shall not be contested by DB Team in good faith or shall remain undismissed and unstayed for a period of sixty (60) days.

## **17.1.2 Forbearance and Cure Periods**

For the purpose of SRTA's exercise of other remedies, subject to Article 17.2.2 and subject to remedies that this Article 17 expressly states may be exercised before lapse of a cure period, DB Team shall have the following cure periods with respect to the following DB Team Defaults:

**17.1.2.1** Respecting a DB Team Default under Article 17.1.1.10, a period of five (5) days after SRTA delivers to DB Team written notice of the DB Team Default;

**17.1.2.2** Respecting a DB Team Default under Article 17.1.1.6, a period of fifteen (15) days after SRTA delivers to DB Team written notice of the DB Team Default; provided that SRTA shall have the right, but not the obligation, to effect cure, at DB Team's expense, if a DB Team Default under Article 17.1.1.6 continues beyond five (5) days after such notice is delivered;

**17.1.2.3** Respecting a DB Team Default under Article 17.1.1.1 or Article 17.1.1.2, a period of thirty (30) days after SRTA delivers to DB Team written notice of the DB Team Default; provided that as to a DB Team Default under Article 17.1.1.1, such cure period shall not preclude or delay SRTA's immediate exercise, without notice or demand, of its right, but not the obligation, to effect cure, at DB Team's expense;

**17.1.2.4** Respecting a DB Team Default under Article 17.1.1.5, Article 17.1.1.8 or Article 17.1.1.9, a period of thirty (30) days after SRTA delivers to DB Team written notice of the DB Team Default; provided that (a) if the DB Team Default is of such a nature that the cure cannot with diligence be completed within such time period and DB Team has commenced meaningful steps to cure immediately after receiving the default notice, DB Team shall have such additional period of time, up to a maximum cure period of one hundred and eighty (180) days, as is reasonably necessary to diligently effect cure, (b) as to Article 17.1.1.5, cure will be regarded as complete when the adverse effects of the breach are cured, and (c) as to Article 17.1.1.9, if the debarred or suspended Person is a managing member, general partner or controlling investor of DB Team, cure will be regarded as complete when DB Team proves it has removed such Person from any position or ability to manage, direct or control the decisions of DB Team or to perform Work;

**17.1.2.5** Respecting a DB Team Default under Article 17.1.1.11 or Article 17.1.1.12, no cure period, and there shall be no right to notice of a DB Team Default under Article 17.1.1.11 or Article 17.1.1.12; and

**17.1.2.6** Respecting a DB Team Default arising from DB Team's failure to achieve any Milestone Deadline other than the Substantial Completion Deadline or Final Acceptance Deadline, a forbearance period of thirty (30) days from the date of such DB Team Default shall apply, provided that DB Team shall, as a condition to such forbearance period, be required to (a) deliver to SRTA a remedial action plan within ten (10) days after written notice of such DB Team Default, pursuant to Article 17.3.5 (without further demand or notice by SRTA), and (b) with the delivery of such remedial action plan, acknowledge any associated Liquidated Damages that are accruing. Where such remedial action plan has been accepted by GDOT in writing, then such forbearance period as provided herein shall be extended or abbreviated as required by such remedial action plan, subject to DB Team's diligent prosecution of the Work in accordance therewith. Any such DB Team Default shall be deemed cured upon satisfaction of the conditions set forth in such accepted remedial action plan and any Liquidated Damages shall cease to accrue upon the date of such satisfaction. Notwithstanding anything to the contrary herein, Liquidated Damages accruing during such forbearance period, as may be extended, shall not be waived by this Article 17.1.2.6 and shall be payable pursuant to the terms of this Agreement.

### **17.1.3 Certain Curative Actions; Status Report**

**17.1.3.1** If the DB Team Default consists of failure to give SRTA a required prior notice and opportunity to complete an applicable review and comment or acceptance procedure under Article 6.3 before action is taken by DB Team, such DB Team Default shall be curable only by reversing or suspending the action until the notice and review and comment or acceptance procedures are followed and completed, unless DB Team finished the action before receiving the notice of DB Team Default or unless waived by SRTA.

**17.1.3.2** If the DB Team Default consists of any DB Team activity or failure to act which constitutes a change from DB Team's activities immediately prior to the DB Team Default, such DB Team Default shall be curable only by reinstating the activity as it was being performed immediately prior to the DB Team Default.

**17.1.3.3** For any DB Team Default for which a Warning Notice has been delivered by SRTA to DB Team, DB Team may request from SRTA a status report as to DB

Team's progress in effecting a cure, by delivering to SRTA a written request accompanied by DB Team's own report as to its progress in effecting a cure. SRTA shall provide its response within ten (10) Business Days after receipt of DB Team's written request and report. The response shall be provided solely for purposes of informing DB Team as to SRTA's view of the progress in effecting a cure for the DB Team Default, shall not constitute an admission of any fact, shall not be admissible in evidence for any purpose, shall not form the basis for any Dispute or Claim, and shall not limit in any way SRTA's right to terminate this Agreement in accordance with Article 19.3 should cure not be effected within the relevant period.

## **17.2 Warning Notices**

### **17.2.1 Warning Notice Events**

Without prejudice to any other right or remedy available to SRTA, SRTA may, but in no case shall be required to, deliver a written notice (a "Warning Notice") to DB Team, stating explicitly that it is a "Warning Notice" and stating in reasonable detail the matter or matters giving rise to the notice and, if applicable, amounts due from DB Team, and reminding DB Team of the implications of such notice, whenever there occurs any of the following:

**17.2.1.1** Any DB Team Default under Article 17.1.1.1, 17.1.1.2, 17.1.1.7, 17.1.1.8, or 17.1.1.10;

**17.2.1.2** Delay or failure to achieve any Milestone Deadline; or

**17.2.1.3** Any other material DB Team Default.

### **17.2.2 Effect of Warning Notice on DB Team Cure Period**

**17.2.2.1** Any notice of a DB Team Default issued under Article 17.1 may, if it concerns a matter under Article 17.2.1, also be issued as a Warning Notice. In such case, the cure period available to DB Team, if any, shall be as set forth in Article 17.1.2.

**17.2.2.2** If SRTA issues a Warning Notice under Article 17.2.1 for any DB Team Default after it issues a notice of such DB Team Default, then the cure period available to DB Team, if any, for such DB Team Default before SRTA may seek to appoint a receiver for DB Team, remove DB Team or terminate this Agreement on account of such DB Team Default shall be extended by the time period between the date the notice of such DB Team Default was issued and the date the Warning Notice is issued. No later issuance of a Warning Notice shall extend the time when SRTA may exercise any other remedy respecting such DB Team Default.

### **17.2.3 Other Effects of Warning Notice**

**17.2.3.1** The issuance of a Warning Notice shall entitle SRTA to increase the level of oversight as provided in Article 17.3.8.

**17.2.3.2** The issuance of a Warning Notice may trigger a Default Termination Event as provided in Article 19.3.

### **17.3 Remedies for DB Team Default**

#### **17.3.1 Termination**

In the event of any DB Team Default that is or becomes a Default Termination Event set forth in Article 19.3.1, SRTA may terminate this Agreement and SRTA thereupon may take control of the Work, which termination shall, among other things, automatically terminate all of DB Team's rights under Article 2, whereupon DB Team shall take all action required to be taken by DB Team under Article 19.5.

#### **17.3.2 Remedies for Failure to Meet Safety Standards or Perform Safety Compliance**

**17.3.2.1** Subject to Article 17.3.2.4, if at any time DB Team fails to meet any Safety Standard or timely perform Safety Compliance or SRTA and DB Team cannot reach an agreement regarding the interpretation or application of a Safety Standard or the valid issuance of a Safety Compliance Order within a period of time acceptable to SRTA, acting reasonably, SRTA shall have the absolute right and entitlement to undertake or direct DB Team to undertake any work required to ensure implementation of and compliance with Safety Standards as interpreted or applied by SRTA or with the Safety Compliance Order.

**17.3.2.2** To the extent that any work done pursuant to Article 17.3.2.1 is undertaken by SRTA and is reasonably necessary to comply with Safety Standards or perform validly issued Safety Compliance Orders, DB Team shall pay to SRTA on demand SRTA Recoverable Costs in connection with such work, and SRTA (whether it undertakes the work or has directed DB Team to undertake the work) shall have no obligation or liability to compensate DB Team for any Losses DB Team suffers or incurs as a result thereof.

**17.3.2.3** To the extent that any work done pursuant to Article 17.3.2.1 is undertaken by SRTA and is not reasonably necessary to comply with Safety Standards or perform validly issued Safety Compliance Orders, SRTA shall compensate DB Team only for Losses DB Team suffers or incurs as a direct result thereof.

**17.3.2.4** To the extent that any Safety Compliance Order work pursuant to Article 17.3.2.1 is undertaken by DB Team under written protest delivered prior to starting the work and it is finally determined that the Safety Compliance work was not necessary, the unnecessary work under the Safety Compliance Order shall be treated as a SRTA Change.

**17.3.2.5** Notwithstanding anything to the contrary contained in the DB Documents, if in the good faith judgment of SRTA, DB Team has failed to meet any Safety Standards or perform Safety Compliance and the failure results in an Emergency or danger to persons or property, and if DB Team is not then diligently taking all necessary steps to rectify or deal with such Emergency or danger, SRTA may, without notice and without awaiting lapse of the period to cure any breach, and in addition and without prejudice to its other remedies, (but is not obligated to) (a) immediately take such action as may be reasonably necessary to rectify the Emergency or danger, in which event DB Team shall pay to SRTA on demand the cost of such action, including SRTA Recoverable Costs, or (b) suspend Construction Work and/or close or cause to be closed any and all portions of the Project affected by the Emergency or danger. So long as SRTA undertakes such action in good faith, even if under a mistaken belief in the occurrence of such failure or existence of an Emergency or danger as a result thereof, such action

shall not be deemed unlawful or a breach of this Agreement, shall not expose SRTA or GDOT to any liability to DB Team and shall not entitle DB Team to any other remedy, it being acknowledged that SRTA or GDOT has a high priority, paramount public interest in protecting public and worker safety at the Project and adjacent and connecting areas. SRTA's good faith determination of the existence of such a failure, Emergency or danger shall be deemed conclusive in the absence of clear and convincing evidence to the contrary. Immediately following rectification of such Emergency or danger, as determined by SRTA, acting reasonably, SRTA shall allow the Construction Work to continue or such portions of the Project to reopen, as the case may be. The foregoing shall not, however, protect SRTA from DB Team's lawful claims to indemnity or contribution for third party bodily injury or property damage arising out of any such SRTA action, if and to the extent (i) SRTA was mistaken in believing such a DB Team Default occurred, (ii) the third party liability is not insured and not required to be insured under the DB Documents, and (iii) such injury or property damage was caused by SRTA's negligence, recklessness or intentional misconduct.

### **17.3.3 Step-in Rights**

Upon the occurrence of a DB Team Default and expiration, without full and complete cure, of the cure period, if any, available to DB Team, without necessity for a Warning Notice, and without waiving or releasing DB Team from any obligations, SRTA shall have the right, but not the obligation, for so long as such DB Team Default remains uncured by SRTA or DB Team, to pay and perform all or any portion of DB Team's obligations and the Work that are the subject of such DB Team Defaults, as well as any other then-existing breaches or failures to perform for which DB Team received prior written notice from SRTA but has not commenced diligent efforts to cure provided, that (i) except with respect to DB Team's lawful claims for third party bodily injury or property damage arising out of such SRTA action, neither SRTA nor GDOT will incur any liability to DB Team for any act or omission of SRTA and/or GDOT or any other Person in the course of remedying or attempting to remedy any DB Team Default and (ii) SRTA's cure of any DB Team Default will not waive or affect SRTA's rights against DB Team by reason of the DB Team Default.

**17.3.3.1** In connection with such action, SRTA may, to the extent and only to the extent reasonably required for or incident to curing the DB Team Default or such other breaches or failures to perform for which DB Team received prior written notice from SRTA but has not commenced and continued diligent efforts to cure:

- (a) Employ security guards and other safeguards to protect the Project;
- (b) Spend such sums as are reasonably necessary to employ and pay such architects, engineers, consultants and contractors and obtain materials and equipment as may be required, without obligation or liability to DB Team or any Contractors for loss of opportunity to perform the same Work or supply the same materials and equipment;
- (c) Draw on and use proceeds from payment and performance bonds and other performance security to the extent available under the terms thereof to pay such sums;
- (d) Execute all applications, certificates and other documents as may be required;

(e) Make decisions respecting, assume control over and continue Work as may be reasonably required;

(f) Meet with, coordinate with, direct and instruct contractors and suppliers, process invoices and applications for payment from contractors and suppliers, pay contractors and suppliers, and resolve claims of contractors, subcontractors and suppliers, and for this purpose DB Team irrevocably appoints SRTA as its attorney-in-fact with full power and authority to act for and bind DB Team in its place and stead;

(g) Take any and all other actions as may be reasonably required or incident to curing; and

(h) Prosecute and defend any action or proceeding incident to the Work undertaken.

**17.3.3.2** DB Team shall reimburse SRTA on demand SRTA Recoverable Costs in connection with the performance of any act or Work authorized by this Article 17.3.3.

**17.3.3.3** SRTA, GDOT, and any of their Authorized Representatives, contractors, subcontractors, vendor and employees shall not be liable to DB Team in any manner for any inconvenience or disturbance arising out of its entry onto the Project or Project Specific Locations in order to perform under this Article 17.3.3, unless caused by the gross negligence, recklessness, willful misconduct or bad faith of such Person. If any Person exercises any right to pay or perform under this Article 17.3.3, it nevertheless shall have no liability to DB Team for the sufficiency or adequacy of any such payment or performance, or for the manner or quality of design, or construction unless caused by the gross negligence, recklessness, willful misconduct or bad faith of such Person.

**17.3.3.4** The rights under this Article 17.3.3 are subject to the right of any Surety under payment and performance bonds to assume performance and completion of all bonded work.

**17.3.3.5** In the event SRTA takes action described in this Article 17.3.3 and it is later finally determined that SRTA lacked the right to do so because there did not occur a DB Team Default and expiration, without full and complete cure, of the cure period, if any, available to DB Team, then SRTA's action shall be treated as a Directive Letter for a SRTA Change.

#### **17.3.4 Damages; Offset**

**17.3.4.1** Subject to Article 17.3.10 and Article 17.3.11 and the provisions on Liquidated Damages set forth in Article 17.4, SRTA shall be entitled to recover any and all damages available at Law (subject to the duty at Law to mitigate damages and without duplicate recovery) on account of the occurrence of a DB Team Default, including, to the extent available at Law, (a) loss of any compensation due SRTA under the DB Documents proximately caused by the DB Team Default, (b) actual and projected costs to remedy any defective part of the Work, (c) actual and projected costs to rectify any breach or failure to perform by DB Team and/or to bring the condition of the Project to the standard it would have been in if DB Team had complied with its obligations to carry out and complete the Work in accordance with the DB Documents, (d) actual and projected costs to SRTA and GDOT to terminate, take over the Project, re-procure and replace DB Team, and (e) actual and projected increases in costs to SRTA and GDOT to complete the Project if not completed, together with interest thereon at the Default Interest Rate

commencing from the date any amount becomes due to SRTA until paid. DB Team shall owe any such damages that accrue after the occurrence of the DB Team Default and the delivery of notice thereof, if any, required by this Agreement regardless of whether the DB Team Default is subsequently cured.

**17.3.4.2** SRTA may deduct and offset any Claim amount owing to it, provided such Claim amount has been liquidated through Dispute Resolution Procedures or otherwise, from and against any amounts SRTA may owe to DB Team or any Affiliate pursuant to this Agreement; provided that SRTA shall first draw on all amounts held in respect of the Claim in the SRTA Claims Account.

**17.3.4.3** If the Claim amount is not liquidated, SRTA may elect to exercise its right to direct a payment from DB Team up to the disputed portion of the Claim which payment shall be deposited into the SRTA Claims Account. Upon liquidation, the disputed portion of the Claim shall be satisfied first from the amounts held in the SRTA Claims Account, and then through SRTA's right of offset with respect to the liquidated Claim amounts.

### **17.3.5 Remedial Action Plan Delivery and Implementation**

**17.3.5.1** Upon the occurrence of a DB Team Default, SRTA shall have the right, but is not obligated, to demand that DB Team shall, within ten (10) days after written notice of such DB Team Default, be required to prepare and submit a remedial action plan for SRTA approval.

**17.3.5.2** The remedial action plan shall set forth a schedule and specific actions to be taken by DB Team to improve its performance and cure the DB Team Default. Such actions may include improvements to DB Team's quality management practices, plans and procedures, revising and restating components of the Management Plans, changes in organizational and management structure, increased monitoring and inspections, changes in Key Personnel and other important personnel, replacement of Contractors, corrective measures necessary to expedite the progress of construction and to demonstrate ability to achieve any Milestone Deadline including, without limitation, (i) working additional shifts or overtime and/or (ii) supplying additional manpower, equipment and facilities, and delivery of security to SRTA.

**17.3.5.3** DB Team's failure to diligently prosecute the Work in accordance with any such approved remedial action plan shall be deemed a further DB Team Default.

### **17.3.6 Performance Security**

**17.3.6.1** Upon the occurrence of a DB Team Default and expiration, without full and complete cure, of the applicable cure period, if any, under Article 17.1.2, without necessity for a Warning Notice, and without waiving or releasing DB Team from any obligations, and subject to Article 16.2.4 if applicable, SRTA shall be entitled to make demand upon and enforce any bond, and make demand upon, draw on and enforce and collect any guaranty or other payment or performance security available to SRTA under this Agreement with respect to the DB Team Default in question in any order in SRTA's sole discretion. Where access to a bond or other payment or performance security is to satisfy damages owing, SRTA shall be entitled to make demand, draw, enforce and collect regardless of whether the DB Team Default is cured subsequent to such draw. SRTA will apply the proceeds of any such action to the satisfaction of DB Team's obligations under the DB Documents, including payment of amounts due SRTA. The

foregoing does not limit or affect any other right of SRTA to make demand upon and enforce any bond, and make demand upon, draw on and enforce and collect any guaranty or other payment or performance security, immediately after SRTA are entitled to do so under the bond, guaranty or other payment or performance security.

### **17.3.7 Suspension of Work**

**17.3.7.1** Upon SRTA's delivery of notice of DB Team Default for any of the following breaches or failures to perform and DB Team's failure to fully cure and correct, within the applicable cure period, if any, available to DB Team under Article 17.1.2, SRTA shall have the right and authority to suspend any affected portion of the Work by written order to DB Team:

- (a) Performance of Nonconforming Work;
- (b) Failure to comply with any Law or Governmental Approval (including failure to handle, preserve and protect archeological, paleontological or historic resources, or failure to handle Hazardous Materials, in accordance with applicable Laws and Governmental Approvals);
- (c) Certain failures to remove and replace personnel as set forth in Article 10.6.3;
- (d) Failure to provide proof of required insurance coverage as set forth in Article 16.1.1.1;
- (e) Failure to carry out and comply with Directive Letters;
- (f) Failure to satisfy any condition to commencement of construction set forth in Article 7.6; and.
- (g) Failure to maintain, extend or replace performance and payment security required under the Agreement, including any P&P Bonds, unless a drawing has been made under same in the amount of the required coverage provided for in Article 16.2 and the proceeds of such drawing are held by SRTA.

SRTA will lift the suspension order promptly after DB Team fully cures and corrects the applicable breach or failure to perform.

**17.3.7.2** In addition, SRTA shall have the right and authority to suspend any affected portion of the Work by written notice to DB Team for the following reasons:

- (a) To comply with any court order or judgment (although it may qualify as a Compensation Event under clause (g) of the definition of "Compensation Event" or a Relief Event under clause (m) of the definition of "Relief Event");
- (b) SRTA's performance of data recovery respecting archeological, paleontological or cultural resources (although it may qualify as a Relief Event under clause (j) of the definition of "Relief Event");
- (c) The existence of conditions unsafe for workers, other Project personnel or the general public, including certain failures to comply with Safety Standards or perform Safety Compliance as set forth in Article 17.3.2.5; or

(d) DB Team has failed to (i) pay in full when due sums owing any Contractor for services, materials or equipment, except only for retainage provided in the relevant Contract and amounts in dispute, or (ii) deliver any certificate, release, certified payroll or affidavit of wages paid required with any Payment Request or required under this Agreement.

**17.3.7.3** DB Team shall promptly comply with any such written suspension order, even if DB Team disputes the grounds for suspension. DB Team shall promptly recommence the Work upon receipt of written notice from SRTA directing DB Team to resume Work.

**17.3.7.4** In addition to the protections from liability under Article 17.3.2.5, neither SRTA nor GDOT shall have any liability to DB Team, and DB Team shall have no right to a Relief Event or Compensation Event, in connection with any suspension properly founded on any of the other grounds set forth in this Article 17.3.7 (except potential Relief Events or Compensation Events in the case of suspensions under Articles 17.3.7.2(a) and 17.3.7.2(b)). If SRTA orders suspension of Work on one of the foregoing grounds but it is finally determined under the process set forth under Dispute Resolution Procedures that such grounds did not exist, or if SRTA orders suspension of Work for any other reason, it shall be treated as a Directive Letter for a SRTA Change, except as provided in Article 17.3.2.5.

#### **17.3.8 Increased Oversight, Testing, and Inspection**

**17.3.8.1** Upon SRTA's delivery of notice of DB Team Default for any of the following breaches or failures to perform and DB Team's failure to fully cure and correct, within the applicable cure period, if any, available to DB Team under Article 17.1.2, SRTA shall have the right and authority to suspend any affected portion of the Work by written order to DB Team.

**17.3.8.2** If SRTA cannot confirm that: (a) a portion of the Design Work or the Construction Work is in accordance with the requirements of the DB Documents due to a lack of documented inspection or testing by DB Team as required under the DB Documents, or (b) DB Team is implementing, revising, or updating a testing and inspection plan in accordance with the DB Documents for the Design Work or the Construction Work, SRTA shall have the right but not the obligation to inform DB Team that increased monitoring, inspection, sampling, measuring, testing and oversight should be provided. If the increased monitoring, inspection, sampling, measuring, testing and oversight reveal: (i) a failure to perform such Work in accordance with the Quality Management Plan, (ii) that the Quality Management Plan does not comply with the DB Documents, or (iii) that such Work is not in accordance with the DB Documents, DB Team shall be responsible for the costs of such increased monitoring, inspection, sampling, measuring, testing and oversight as described in Article 17.3.8. DB Team shall correct such deficiencies and the increased monitoring, inspection, sampling, measuring, testing and oversight will continue until those deficiencies have been corrected. If such Work was performed, inspected and documented by DB Team in accordance with the DB Documents, the costs of the increased monitoring, inspection, sampling, measuring, testing and oversight shall be borne by SRTA.

**17.3.8.3** If SRTA increases the level of monitoring, inspection, sampling, measuring, testing, auditing and oversight under Article 17.3.8.1 and Liquidated Damages are not provided for under this Agreement in connection with such action, then DB Team shall pay and reimburse GDOT within thirty (30) days after receipt of written demand and reasonable supporting documentation for all increased costs and fees SRTA incurs in connection with such action, including SRTA Recoverable Costs.

**17.3.8.4** The foregoing does not preclude SRTA, at its sole discretion and expense, from increasing its level of monitoring, inspection, sampling, measuring, testing, auditing and oversight at other times.

#### **17.3.9 Other Rights and Remedies**

Subject to Article 17.3.11, Article 17.4.5.2 and Article 19.9, SRTA shall also be entitled to exercise any other rights and remedies available under this Agreement or any other DB Documents, or available at law or in equity, and shall be authorized to permit GDOT to exercise any of such remedies on SRTA's behalf.

#### **17.3.10 Cumulative, Non-Exclusive Remedies**

Subject to Articles 17.3.11, 17.4.5.2 and 19.9, each right and remedy of SRTA or GDOT hereunder shall be cumulative and shall be in addition to every other right or remedy provided herein or now or hereafter existing at Law or in equity or by statute or otherwise, and the exercise or beginning of the exercise by SRTA or GDOT of any one or more of any of such rights or remedies shall not preclude the simultaneous or later exercise by SRTA or GDOT of any or all other such rights or remedies.

#### **17.3.11 Limitation on Consequential Damages**

**17.3.11.1** Notwithstanding any other provision of the DB Documents and except as set forth in Article 17.3.11.2, to the extent permitted by applicable Law, DB Team shall not be liable for punitive damages or special, indirect or incidental, or consequential damages, whether arising out of breach of this Agreement, tort (including negligence) or any other theory of liability, and SRTA releases DB Team from any such liability, other than for Liquidated Damages for delay, as provided pursuant to this Agreement or otherwise to the extent recoverable from insurance.

**17.3.11.2** The foregoing limitation on DB Team's liability for consequential damages shall not apply to or limit any right of recovery SRTA may have respecting the following:

(a) Losses (including defense costs) to the extent (i) covered by the proceeds of insurance required to be carried pursuant to Article 16.1, (ii) covered by the proceeds of insurance actually carried by or insuring DB Team under policies solely with respect to the Project and the Work, regardless of whether required to be carried pursuant to Article 16.1, or (iii) DB Team is deemed to have self-insured the Loss pursuant to Article 16.3.3;

(b) Losses arising out of fraud, criminal conduct, intentional misconduct (which does not include any intentional DB Team Default), recklessness, bad faith or gross negligence on the part of DB Team or Contractor or any Affiliate of either;

(c) DB Team's obligation to pay Liquidated Damages in accordance with Article 17.4 or any other provision of the DB Documents;

(d) Losses arising out of DB Team Releases of Hazardous Materials;

(e) Reserved;

(f) Amounts DB Team may be obligated to reimburse to SRTA or that are otherwise due from DB Team to SRTA under the express provisions of the DB Documents, including SRTA Recoverable Costs;

(g) Interest, late charges, fees, transaction fees and charges, penalties and similar charges that the DB Documents expressly state are due from DB Team to SRTA; and

(h) Any credits, deductions or offsets that the DB Documents expressly provide to SRTA against amounts owing DB Team.

#### **17.4 Liquidated Damages**

##### **17.4.1 Liquidated Damages for Delayed Interim Completion Deadline(s), Substantial Completion Deadline, or Final Acceptance**

**17.4.1.1** DB Team shall be liable for and pay to SRTA Liquidated Damages with respect to any failure to achieve an Interim Completion(s) by the Interim Completion Deadline(s), Substantial Completion by the Substantial Completion Deadline, or any failure to achieve Final Acceptance by the Final Acceptance Deadline, as the same may be extended pursuant to this Agreement, or for any other breach of the requirements of the DB Documents as set forth pursuant to Section 1.2 of Exhibit 18. Such liability shall apply even though (a) a cure period remains available to DB Team under Article 17.1.2 or (b) cure occurs. The amounts of such Liquidated Damages are set forth in Exhibit 18. Such Liquidated Damages shall commence on the Substantial Completion Deadline or the Final Acceptance Deadline, as applicable, or upon the date of breach for each such incident based default pursuant to Section 1.2 of Exhibit 18, as the same may be extended pursuant to this Agreement, and shall continue to accrue until the date of Substantial Completion, the date of Final Acceptance, the cure of any such incident based breach, all as applicable, or until termination of this Agreement.

##### **17.4.1.2 Reserved**

##### **17.4.2 Reserved.**

##### **17.4.3 Acknowledgements Regarding Liquidated Damages**

DB Team further agrees and acknowledges that:

**17.4.3.1** In the event that DB Team fails to achieve Substantial Completion by the Substantial Completion Deadline or Final Acceptance by the Final Acceptance Deadline, SRTA and GDOT will incur substantial damages;

**17.4.3.2** Such damages are incapable of accurate measurement and difficult to prove for the reasons stated in this Article 17.4;

**17.4.3.3** As of the Effective Date, the amounts of Liquidated Damages under this Article 17.4 represent good faith estimates and evaluations by the Parties as to the actual potential damages that SRTA would incur as a result of late Substantial Completion or late Final Acceptance, and do not constitute a penalty or to otherwise operate as a deterrent for the breach of any obligations of DB Team under this Agreement;

**17.4.3.4** The Parties have agreed to such Liquidated Damages in order to fix and limit DB Team's costs and to avoid later Disputes over what amounts of damages are properly chargeable to DB Team;

**17.4.3.5** Such sums are reasonable in light of the anticipated or actual harm caused by delayed Substantial Completion or delayed Final Acceptance, the difficulties of the proof of loss, and the inconvenience or infeasibility of otherwise obtaining an adequate remedy;

**17.4.3.6** DB Team acknowledges that such Liquidated Damages are reasonable, as determined as of the Effective Date, in light of the respective injuries and damages that may be caused by DB Team's breach and given that such injuries and damages, which include but shall not be limited to, public inconvenience, increased administration and oversight by SRTA, GDOT (and any other related agencies), and other damages to the general public, SRTA, GDOT (and other related agencies); and

**17.4.3.7** Such Liquidated Damages are not intended to, and do not, liquidate DB Team's liability under the indemnification provisions of Article 16.5, even though third party claims against Indemnified Parties may arise out of the same event, breach or failure that gives rise to such Liquidated Damages.

**17.4.4 Payment; Satisfaction; Waiver**

**17.4.4.1** SRTA shall withhold Liquidated Damages owing under this Article 17.4 from the subsequent DB Team pay application. Liquidated damages shall be withheld by SRTA without right of offset, deduction, reduction or other charge, except as provided in Article 17.6.3.

**17.4.4.2** SRTA shall have the right to deduct and offset Liquidated Damages from any amounts owing DB Team to the extent provided in Article 17.3.4. SRTA also shall have the right to draw on any bond, certificate of deposit, or other security provided by DB Team pursuant to this Agreement, to satisfy Liquidated Damages not paid when due.

**17.4.4.3** Permitting or requiring DB Team to continue and finish the Work or any part thereof after the Substantial Completion Deadline or Final Acceptance Deadline shall not act as a waiver of SRTA's right to receive Liquidated Damages hereunder or any rights or remedies otherwise available to SRTA.

**17.4.5 Non-Exclusive Remedy**

**17.4.5.1** Each item of Liquidated Damages provided under this Article 17.4 is in addition to, and not in substitution for, any other item of Liquidated Damages assessed under this Article 17.4.

**17.4.5.2** SRTA's right to, and imposition of, Liquidated Damages are in addition, and without prejudice, to any other rights and remedies available to SRTA under the DB Documents, at law or in equity respecting the breach, failure to perform or DB Team Default that is the basis for the Liquidated Damages or any other breach, failure to perform or DB Team Default, except for recovery of the monetary damage for delay that the Liquidated Damages are intended to compensate and for which Liquidated Damaged shall be the only amount recoverable on account of delay damages.

**17.5 Default by SRTA; Cure Periods**

### **17.5.1 SRTA Default**

SRTA shall, subject to any applicable cure period as set forth in Article 17.5.2 below, be in breach under this Agreement upon the occurrence of any one or more of the following events or conditions (each a “SRTA Default”):

**17.5.1.1** SRTA fails to make any payment due DB Team under this Agreement within thirty (30) days of the date that any such payment shall be due;

**17.5.1.2** Any representation or covenant made by SRTA in this Agreement is false or materially misleading or materially inaccurate when made or omits material information when made;

**17.5.1.3** SRTA fails to observe or perform any covenant, agreement, term or condition required to be observed or performed by SRTA under the DB Documents;

**17.5.1.4** SRTA makes an assignment other than as permitted pursuant to Article 21.3; or

**17.5.1.5** SRTA, GDOT or other State Governmental Entity confiscates or appropriates the Project or any other material part of DB Team’s Interest, excluding a Termination for Convenience or any other exercise of a right of termination set forth in this Agreement.

### **17.5.2 Cure Periods**

SRTA shall have the following cure periods with respect to the any of the conditions set forth in Article 17.5.1 above:

**17.5.2.1** Respecting a SRTA Default under Article 17.5.1.1, a period of thirty (30) days after DB Team delivers to SRTA written notice of the SRTA Default; and

**17.5.2.2** Respecting a SRTA Default under Article 17.5.1.2, 17.5.1.3, or 17.5.1.5, a period of sixty (60) days after DB Team delivers to SRTA written notice of the SRTA Default; provided that (a) if the SRTA Default is of such a nature that the cure cannot with diligence be completed within such time period and SRTA has commenced meaningful steps to cure immediately after receiving the default notice, SRTA shall have such additional period of time, up to a maximum cure period of one hundred eighty (180) days, as is reasonably necessary to diligently effect cure, and (b) as to Article 17.5.1.2, cure will be regarded as complete when the adverse effects of the breach are cured.

**17.5.2.3** respecting a SRTA Default under Section 17.5.1.4, a period of forty-five (45) days after DB Team delivers to SRTA written notice of the SRTA Default; and

**17.5.2.4** respecting a SRTA Default under Section 17.5.1.5, a period of thirty (30) days after DB Team delivers to SRTA written notice of the SRTA Default; provided that if the SRTA Default is of such a nature that the cure cannot with diligence be completed within such time period and SRTA has commenced meaningful steps to cure immediately after receiving the default notice, SRTA shall have such additional period of time, up to a maximum cure period of one hundred and twenty (120) days, as is reasonably necessary to diligently effect cure.

## **17.6 DB Team Remedies for SRTA Default**

### **17.6.1 Termination and Suspension**

**17.6.1.1** Subject to Article 19.9, DB Team will have the right to suspend performance of the Work on account of a SRTA Default subject to any applicable notice and cure periods as set forth in Article 17.5.2.

**17.6.1.2** Further, DB Team may upon written notice of not less than fifteen (15) days to SRTA following expiration of such applicable cure period, where such SRTA Default is continuing, exercise the right to terminate this Agreement and recover termination damages as more particularly set forth in, and subject to the terms and conditions of, Article 19.4.

### **17.6.2 Damages and Other Remedies**

DB Team shall have and may exercise the following remedies upon the occurrence of a SRTA Default and expiration, without cure, of the applicable cure period:

**17.6.2.1** If DB Team does not terminate this Agreement, then, subject to Article 17.6.4, DB Team may treat the SRTA Default as a Compensation Event on the terms and conditions set forth in Article 13.2 and SRTA shall pay the full Compensation Amount and interest in accordance with Articles 13.2.6 and 13.2.7;

**17.6.2.2** If the SRTA Default is a failure to pay when due any undisputed portion of a progress payment owing under a Supplemental Agreement and SRTA fails to cure such SRTA Default within thirty (30) days after receiving from DB Team written notice thereof, DB Team shall be entitled to suspend the Work under the Supplemental Agreement until the default is cured; and

**17.6.2.3** Subject to Articles 17.6.4 and 19.9, DB Team also shall be entitled to exercise any other remedies available under this Agreement or at Law or in equity, including offset rights to the extent and only to the extent available under Article 17.6.3. Subject to Articles 17.6.4 and 19.9, each right and remedy of DB Team hereunder shall be cumulative and shall be in addition to every other right or remedy provided herein or now or hereafter existing at Law or in equity or by statute or otherwise, and the exercise or beginning of the exercise by DB Team of any one or more of any of such rights or remedies shall not preclude the simultaneous or later exercise by DB Team of any or all other such rights or remedies.

### **17.6.3 Offset Rights**

DB Team may deduct and offset any Claim amount owing to it, provided such Claim amount has been liquidated through the Dispute Resolution Procedures, as provided in Article 17.7 or otherwise, from and against any amounts DB Team may owe to SRTA pursuant hereto.

### **17.6.4 Limitations on Remedies**

**17.6.4.1** Notwithstanding any other provision of the DB Documents and except as forth in Article 17.6.4.2, to the extent permitted by applicable Law, neither SRTA nor GDOT shall not be liable for punitive damages or any indirect, incidental or consequential damages,

whether arising out of breach of this Agreement or any DB Documents, tort (including negligence) or any other theory of liability, and DB Team releases SRTA and GDOT from any such liability.

**17.6.4.2** The foregoing limitation on SRTA's and GDOT's liability for consequential damages shall not apply to or limit any right of recovery DB Team may have respecting the following:

(a) Losses arising out of fraud, criminal conduct, intentional misconduct (which does not include any intentional GDOT Default), recklessness, bad faith or gross negligence on the part of GDOT;

(b) Losses arising out of SRTA Release(s) of Hazardous Materials or Pre-Existing Hazardous Materials;

(c) Any amounts SRTA may owe or be obligated to reimburse under the express provisions of this Agreement for Compensation Events or events of termination;

(d) Any other specified amounts SRTA may owe or be obligated to reimburse to DB Team under the express provisions of the DB Documents;

(e) Interest and charges that the DB Documents expressly state are due from SRTA to DB Team; and

(f) Any credits, deductions or offsets that the DB Documents expressly provide to DB Team against amounts owing SRTA.

**17.6.4.3** The measure of compensation available to DB Team as set forth in this Agreement for a Compensation Event or an event of termination shall constitute the sole and exclusive monetary relief and damages available to DB Team from the State, SRTA or GDOT arising out of or relating to such event; and DB Team irrevocably waives and releases any right to any other or additional damages or compensation from the State, SRTA or GDOT. No award of compensation or damages shall be duplicative.

**17.6.4.4** Without limiting the effect of Article 17.6.4.3, in the event SRTA wrongfully withholds an acceptance or consent required under this Agreement, or wrongfully issues an objection to or disapproval of a Submittal or other matter under this Agreement, DB Team's sole remedies against SRTA or GDOT shall be extensions of time to the extent provided in Article 13.1 for a Relief Event and damages to the extent provided in Article 13.2 for a Compensation Event.

#### **17.6.5 Procedure for Payment of Judgments**

Promptly after any final, non-appealable order or judgment awarding compensation or damages to DB Team, SRTA shall institute payment procedures as set forth in applicable Law.

### **17.7 Dispute Resolution Procedures**

**17.7.1** The Parties shall endeavor to resolve any Dispute that may arise between them through good faith negotiations. If the Dispute is not resolved to the mutual satisfaction of all Parties within thirty (30) days after written notification of such Dispute, or such longer time as is mutually agreed, the dispute shall next be submitted in accordance with Section 17.7.2.

**17.7.2** If, despite good faith negotiations between the Parties, any Disputes are not resolved within thirty (30) days after written notification of such Dispute, then the Dispute shall be submitted administratively to mediation as set forth below.

**17.7.2.1** The Parties shall mutually select a private mediator to formally mediate the Disputes. If the Parties cannot mutually select a private mediator, the mediator shall be selected pursuant to the mediation rules established by the American Arbitration Association or other dispute resolution organization agreed to by the Parties. Mediation shall normally be scheduled within forty five (45) calendar days of notification of the decision by either party to submit the Dispute to mediation. SRTA and DB Team shall each pay one-half of the fees and administrative costs charged by the selected mediator. Other parties, such as GDOT and Contractors, may be invited to the mediation as may be appropriate for the mediation.

**17.7.2.2** The Parties, to provide economies of scale, may mutually agree in writing to submit one or more Claims, whether or not factually related, to a single mediation. In such event, time periods may be extended by mutual written agreement to facilitate preparation for the mediation.

**17.7.2.3** If the Dispute has not been settled within forty-five (45) calendar days following written notification of the Dispute to mediation or within such other period that the Parties may agree in writing, such Dispute may be submitted to litigation by either party in accordance with Section 17.7.4.

**17.7.3** No litigation may be filed by either Party concerning any Claim or Dispute prior to using the procedure described in Section 17.7.2. This procedure is a condition precedent for any Party to commence a civil action for resolution of a Claim or Dispute.

**17.7.4** All litigation between the Parties arising out of or pertaining to this Agreement or its breach shall be filed, heard and decided in the Superior Court of Fulton County, Georgia, which shall have exclusive jurisdiction and venue pursuant to O.C.G.A. § 50-21-1. Each Party shall bear its own attorney's fees and costs in any dispute or litigation arising out of or pertaining to this Agreement, and no Party shall seek or accept an award of attorney's fees or costs.

## **Article 18      RESERVED**

## **Article 19      TERMINATION**

### **19.1      Termination for Convenience**

**19.1.1** SRTA may terminate this Agreement, if SRTA determines, in its sole discretion, that a termination is in SRTA's best interest (a "Termination for Convenience"). Termination of this Agreement shall not relieve SRTA, DB Team or any Guarantor or Surety of its obligation for any claims arising prior to termination.

**19.1.2** SRTA may exercise Termination for Convenience by delivering to DB Team a written notice of termination for Convenience specifying the election to terminate. Termination for Convenience shall be effective as and when provided in Exhibit 20.

**19.1.3** In the event of a Termination for Convenience, DB Team will be entitled to compensation determined in accordance with Exhibit 20. Payment will be due and payable as and when provided in Exhibit 20.

**19.1.4** If SRTA terminates this Agreement on grounds or in circumstances beyond SRTA's termination rights specifically set forth in this Agreement, such termination shall be deemed a Termination for Convenience for the purpose of determining the Termination Compensation due.

**19.2 Reserved**

**19.3 Termination for DB Team Default**

**19.3.1 DB Team Defaults Triggering SRTA Termination Rights**

The following DB Team Defaults (each a "Default Termination Event"), and no other DB Team Defaults, shall entitle SRTA, at its sole election, to terminate this Agreement, effective immediately upon delivery of written notice of termination to DB Team. DB Team agrees and acknowledges and stipulates that any of the following DB Team Defaults would result in material and substantial harm to SRTA's rights and interests under this Agreement and therefore constitute a material DB Team Default justifying termination if not cured within the applicable cure period, if any.

**19.3.1.1** The DB Team fails to achieve Substantial Completion by the Substantial Completion Deadline, as the same may be extended pursuant to this Agreement;

**19.3.1.2** There occurs any other DB Team Default for which SRTA issues a Warning Notice under Article 17.2 or 17.3, and such DB Team Default is not fully and completely cured within the applicable cure period, if any, set forth in Article 17.2.2.1 or 17.3;

**19.3.1.3** There occurs any DB Team Default under Article 17.1.1.11 or 17.1.1.12; or

**19.3.1.4** The DB Team fails to diligently prosecute and adhere to the requirements of any remedial action plan as provided and accepted by SRTA pursuant to Article 17.3.5.

**19.3.2 Compensation to DB Team**

If SRTA issues notice of termination of this Agreement due to a Default Termination Event, or if DB Team terminates this Agreement on grounds or in circumstances beyond DB Team's termination rights specifically set forth in this Agreement, DB Team will be entitled to compensation to the extent, and only to the extent, provided in Exhibit 20. Payment shall be due and payable as and when provided in Exhibit 20.

**19.3.3 Finality**

If SRTA issues notice of termination of this Agreement due to a Default Termination Event, termination shall be effective and final immediately upon delivery of written notice as provided in Article 19.3.1 regardless of whether SRTA is correct in determining that SRTA has the right to terminate for DB Team Default. In the event it is determined that SRTA lacked such right, then such termination shall be treated as a Termination for Convenience as provided in Article 19.1.4 for the purpose of determining the Termination Compensation due.

#### **19.4 Termination for SRTA Default, Suspension of Work, Force Majeure Event, or Materially Delayed Notice to Proceed**

**19.4.1** In the event of a material SRTA Default under Article 17.5.1.1 (failure to pay money due) that remains uncured following notice and expiration of the applicable cure period under Article 17.5.2, DB Team may deliver to SRTA a further written notice setting forth such SRTA Default and warning SRTA that DB Team may elect to terminate this Agreement and if SRTA does not cure such SRTA Default within sixty (60) days after the delivery of such notice with respect to a SRTA Default under Article 17.5.1.1. SRTA may avoid termination by effecting cure within such sixty (60) day period. Failing such cure, DB Team shall have the right to terminate this Agreement, effective immediately upon delivery of written notice of termination to SRTA. In the event of such termination, DB Team will be entitled to compensation determined in accordance with Exhibit 20. Payment shall be due and payable as and when provided in Exhibit 20. Any Dispute arising out of the determination of such compensation shall be resolved according to the Dispute Resolution Procedures.

**19.4.2** In the event (i) SRTA orders DB Team to suspend Work on all or any material portion of the Project for a reason other than those set forth in Article 17.3.7.1, or (ii) as a result of a Force Majeure Event, and such suspension of Work continues for a period of one hundred and eighty (180) consecutive days or more, DB Team shall have the right to terminate this Agreement, effective immediately upon delivery of written notice of termination to SRTA. In the event of such termination, DB Team will be entitled to compensation determined in accordance with Exhibit 20. Payment shall be due and payable as and when provided in Exhibit 20. Any Dispute arising out of the determination of such compensation shall be resolved according to the Dispute Resolution Procedures.

**19.4.3** In the event SRTA, due to no fault of a DB Team-Related Entity or other than because the NEPA Finality Date has not occurred, does not issue NTP 1, NTP 2, or NTP 3 within three hundred and sixty five (365) days after the anticipated issuance date set forth in Article 3.3, DB Team shall have the right to terminate this Agreement, effective immediately upon delivery of written notice of termination to SRTA. In the event of such termination, DB Team will be entitled to compensation determined in accordance with Exhibit 20. Payment shall be due and payable as and when provided in Exhibit 20. Any Dispute arising out of the determination of such compensation shall be resolved according to the Dispute Resolution Procedures.

**19.4.4** If DB Team issues notice of termination of this Agreement due to a material SRTA Default under Article 17.5.1.1, termination shall be effective and final immediately upon delivery as provided in Article 19.4.1 regardless of whether DB Team is correct in determining that it has the right to terminate for such SRTA Default. In the event it is determined that DB Team lacked such right, then such termination shall be treated as a termination due to material DB Team Default and Article 19.3.2 shall govern the measure of the Termination Compensation.

#### **19.5 Termination Procedures and Duties**

**19.5.1** Upon expiration of the Term or any earlier termination of this Agreement for any reason, including due to SRTA Default, the provisions of this Article 19.5 shall apply. DB Team shall timely comply with such provisions independently of, and without regard to, the timing for determining, adjusting, settling and paying any amounts due DB Team or SRTA on account of termination.

**19.5.2** In any case where notice of termination precedes the effective Early Termination Date:

**19.5.2.1** DB Team shall continue performing the Work in accordance with, and without excuse from, all the standards, requirements and provisions of the DB Documents, and without curtailment of services, quality and performance;

**19.5.2.2** Reserved

**19.5.2.3** At SRTA's option, it may increase the level of its monitoring, inspection, sampling, measuring, testing, auditing and oversight of the Project and DB Team's compliance with the obligations under the DB Documents, to such level as SRTA reasonably sees fit to protect against curtailment of services, quality and performance; and

**19.5.2.4** Within three (3) days after receipt of a notice of termination, DB Team shall meet and confer with SRTA for the purpose of developing an interim transition plan for the orderly transition of Work, demobilization and transfer of the Project control to SRTA. The Parties shall use diligent efforts to complete preparation of the interim transition plan within fifteen (15) days after the date DB Team receives the notice of termination. The Parties shall use diligent efforts to complete a final transition plan within thirty (30) days after such date. The transition plan shall be in form and substance acceptable to SRTA in its good faith discretion and shall include and be consistent with the other provisions and procedures set forth in this Article 19.5, all of which procedures DB Team shall immediately follow, regardless of any delay in preparation or acceptance of the transition plan.

**19.5.3** On the Termination Date, or as soon thereafter as is possible, DB Team shall relinquish and surrender full control and possession of the Project to SRTA, and shall cause all persons and entities claiming under or through DB Team to do likewise, in at least the condition required by the Termination Turnover Requirements.

**19.5.4** On the later of the Termination Date or the date DB Team relinquishes full control and possession, SRTA shall assume responsibility, at its expense, for the Project, subject to any rights to damages that SRTA has against DB Team where the termination is due to a Default Termination Event.

**19.5.5** Reserved.

**19.5.6** Reserved.

**19.5.7** Within thirty (30) days after notice of termination is delivered, DB Team shall provide SRTA with true and complete list of all materials, goods, machinery, equipment, parts, supplies and other property in inventory or storage (whether held by DB Team or any Person or entity on behalf of or for the account of DB Team) for use in or respecting the Work or the Project, or on order or previously completed but not yet delivered from Suppliers for use in or respecting the Work or the Project. In addition, on or about the Termination Date, DB Team shall transfer title and deliver to SRTA or SRTA's Authorized Representative, through bills of sale or other documents of title, as directed by SRTA, all such materials, goods, machinery, equipment, parts, supplies and other property.

**19.5.8** DB Team shall take all action that may be necessary, or that SRTA may direct, for the protection and preservation of the Project, the Work and such materials, goods, machinery, equipment, parts, supplies and other property.

**19.5.9** On or about the Termination Date, DB Team shall execute and deliver to SRTA the following, together with an executed bill of sale or other written instrument, in form and substance acceptable to SRTA, acting reasonably, assigning and transferring to SRTA all of DB Team's right, title and interest in and to the following:

**19.5.9.1** All completed or partially completed drawings (including plans, elevations, sections, details and diagrams), specifications, designs, Design Documents, as-built and record plans, surveys, and other documents and information pertaining to the design or construction of the Project or the Utility Adjustments;

**19.5.9.2** All samples, borings, boring logs, geotechnical data and similar data and information relating to the Project;

**19.5.9.3** All books, records, reports, test reports, studies and other documents of a similar nature relating to the Work, the Project;

**19.5.9.4** All data and information relating to the use of the Project, including all studies, reports, and other information provided that the transfer of any Intellectual Property shall be subject to Articles 22.4; and

**19.5.9.5** All other work product and Intellectual Property used or owned by DB Team or any Affiliate relating to the Work, the Project, provided that the transfer of any Intellectual Property shall be subject to Articles 22.4.

**19.5.10** Reserved.

**19.5.11** On or about the Termination Date, DB Team shall execute and deliver to SRTA a written assignment, in form and substance acceptable to SRTA, acting reasonably, of all DB Team's right, title and interest in and to all warranties, claims and causes of action held by DB Team against third parties in connection with the Project or the Work.

**19.5.12** DB Team shall otherwise assist SRTA in such manner as SRTA may require prior to and for a reasonable period following the Termination Date to ensure the orderly transition of the Project and its management to SRTA.

## **19.6 Reserved**

## **19.7 Contracts and Agreements**

**19.7.1** Regardless of SRTA's prior actual or constructive knowledge thereof, no contract or agreement to which DB Team is a party (unless SRTA is also a party thereto) as of the Termination Date shall bind SRTA, unless SRTA elects to assume such contract or agreement in writing. Except in the case of SRTA's express written assumption, no such contract or agreement shall entitle the contracting party to continue performance of work or services respecting the Project following DB Team's relinquishment to SRTA of possession and control of the Project, or to any claim, legal or equitable, against SRTA.

## **19.8 Liability After Termination; Final Release**

**19.8.1** No termination of this Agreement shall excuse either Party from any liability arising out of any default as provided in this Agreement that occurred prior to termination. Notwithstanding the foregoing, any termination of this Agreement shall automatically extinguish any Claim of DB Team to payment of Compensation Amounts for adverse cost and revenue impacts accruing after the Early Termination Date from Compensation Events that occurred prior to termination.

**19.8.2** If this Agreement is terminated under Article 19.1, 19.3.1, 19.4, or 19.11, then SRTA's payment to DB Team of the amounts required thereunder (if any) shall constitute full and final satisfaction of, and upon payment SRTA and GDOT shall be forever released and discharged from, any and all Claims, causes of action, suits, demands and Losses, known or unknown, suspected or unsuspected, that DB Team may have against SRTA and GDOT arising out of or relating to this Agreement or termination thereof, or the Project, are unresolved at the time of such payment and are not related to termination or Termination Compensation. Upon such payment, DB Team shall execute and deliver to SRTA all such releases and discharges as SRTA may reasonably require to confirm the foregoing, but no such written release and discharge shall be necessary to give effect to the foregoing satisfaction and release.

## **19.9 Exclusive Termination Rights**

This Article 19, together with the express provisions on termination set forth in Articles 17.3.1, and 17.6.1, contain the entire and exclusive provisions and rights of SRTA and DB Team regarding termination of this Agreement, and any and all other rights to terminate at law or in equity are hereby waived to the maximum extent permitted by Law.

## **19.10 Access to Information**

DB Team shall conduct all discussions and negotiations to determine any Termination Compensation, and shall share with SRTA all data, documents and information pertaining thereto, on an Open Book Basis.

## **19.11 Termination by Court Ruling**

**19.11.1** Except in the circumstances described in Exhibit 20, Termination by Court Ruling means, and becomes effective upon, (a) issuance of a final order by a court of competent jurisdiction to the effect that this Agreement is void and/or unenforceable or impossible to perform in its entirety, (b) issuance of a final order by a court of competent jurisdiction upholding the binding effect on DB Team or SRTA of a Change in Law that causes impossibility of performance of a fundamental obligation by DB Team or SRTA under the DB Documents or impossibility of exercising a fundamental right of DB Team or SRTA under the DB Documents, (c) occurrence of the circumstances described in Article 24.13.2, or (d) issuance of a final order by a court of competent jurisdiction to the effect that a material provision under the Estate for Years, Intergovernmental Agreement or the DB Documents is void and/or unenforceable so as to deprive DB Team of its ability to exercise a fundamental right granted to DB Team under the DB Documents and such inability resulting from such order cannot be otherwise remedied through a Compensation Event, Relief Event or other contractual remedy. The final court order shall be treated as the notice of termination.

**19.11.2** Once Termination by Court Ruling becomes effective, SRTA and DB Team shall cooperate to implement Articles 19.5, 19.8, and 19.9.

**19.11.3** Notwithstanding Article 19.11.2, if a Termination by Court Ruling occurs, DB Team shall be entitled to compensation to the extent, and only to the extent, provided in Exhibit 20. Payment shall be due and payable as and when provided in Exhibit 20. Any Dispute arising out of the determination of such compensation shall be resolved according to the Dispute Resolution Procedures.

## **Article 20 RESERVED**

## **Article 21 ASSIGNMENT AND TRANSFER**

### **21.1 Restrictions on Assignment, Subletting and Other Transfers**

**21.1.1** DB Team shall not voluntarily or involuntarily sell, assign, convey transfer, pledge, mortgage or otherwise encumber the DB Team's Interest or any portion thereof without SRTA's prior written acceptance (including under any Direct Agreement), except:

**21.1.1.1** To any entity that is under the same ultimate management control as DB Team.

**21.1.2** DB Team shall not grant any other special occupancy or use of the Project to any other Person that is not in the ordinary course of DB Team performing the Work, without SRTA's prior written acceptance.

**21.1.3** Any sale, assignment, conveyance, transfer, pledge, mortgage, encumbrance, or grant of other special occupancy or use in violation of this provision shall be null and void *ab initio* and SRTA may, by Warning Notice, declare any such attempted action to be a material DB Team Default.

### **21.2 Standards and Procedures for SRTA Acceptance**

**21.2.1** Where SRTA's prior acceptance is required for a proposed sale, assignment, conveyance, transfer, pledge, mortgage, encumbrance, sublease or grant of other special occupancy or use, or for any proposed Change of Control, SRTA may withhold or condition its acceptance in its sole discretion. Any such decision of SRTA to withhold consent shall be final, binding and not subject to the Dispute Resolution Procedures.

**21.2.2** Thereafter, SRTA shall not unreasonably withhold its acceptance thereto. Among other reasonable factors and considerations, it shall be reasonable for SRTA to withhold its acceptance if:

**21.2.2.1** DB Team fails to demonstrate to SRTA's reasonable satisfaction that the proposed assignee, sublessee, grantee or transferee, or the proposed transferee of rights and/or equity interests that would amount to a Change of Control (for purposes of these Articles 21.2 through 21.5, collectively the "Transferee"), and its proposed contractors (a) have the financial resources, qualifications and experience to timely perform DB Team's obligations under the DB Documents and Principal Project Documents and (b) are in compliance with SRTA's or GDOT's rules, regulations and adopted written policies regarding organizational conflicts of interest;

**21.2.2.2** Less than all of DB Team's Interest is proposed to be assigned, conveyed, transferred, pledged, mortgaged, encumbered, or granted; or

**21.2.2.3** At the time of the proposed sale, assignment, conveyance, transfer, pledge, mortgage, encumbrance, sublease or grant of other special occupancy or use requiring SRTA's prior acceptance, or of any proposed Change of Control, there exists any uncured DB Team Default or any event or circumstance that with the lapse of time, the giving of notice or both would constitute a DB Team Default, unless SRTA receives from the proposed Transferee assurances of cure and performance acceptable to SRTA in its good faith discretion.

**21.2.3** SRTA will accept or disapprove within thirty (30) days after it receives from DB Team a Submittal consisting of a request for acceptance together with (a) a reasonably detailed description of the proposed transaction, (b) such information, evidence and supporting documentation as SRTA may request concerning the identity, financial resources, qualifications, experience and potential conflicts of interest of the proposed Transferee and its proposed contractors and (c) such evidence of organization and authority, and such incumbency certificates, certificates regarding debarment or suspension, and other certificates, representations and warranties as SRTA may reasonably request. SRTA will evaluate the identity, financial resources, qualifications, experience and potential conflicts of interest using the same standards and criteria that it is then currently applying, or if there is no current application, then the same standards and criteria it most recently applied, to the evaluation of Persons responding to SRTA requests for qualifications for concession or similar agreements for comparable projects and facilities.

**21.2.4** If for any reason SRTA does not act within such thirty (30) day period, or any extension thereof by mutual agreement of the Parties, then the provisions of Article 6.3.4.2 shall apply.

### **21.3 Assignment by SRTA**

SRTA may assign all or any portion of its rights, title and interests in and to the DB Documents, payment and performance bond(s), guarantees, and other security for payment or performance, (a) without DB Team's consent, to any other Person that succeeds to the governmental powers and authority of SRTA, and (b) to others with the prior written consent of DB Team.

### **21.4 Notice and Assumption**

**21.4.1** Assignments and transfers of the DB Team's Interest permitted under this Article 21 (other than pursuant to Article 21.1.1.1) or otherwise accepted in writing by SRTA shall be effective only upon SRTA's receipt of written notice of the assignment or transfer and a written recordable instrument executed by the Transferee, in form and substance acceptable to SRTA, in which the Transferee, without condition or reservation, assumes all of DB Team's obligations, duties and liabilities under the DB Documents and agrees to perform and observe all provisions thereof applicable to DB Team.

**21.4.2** Each Transferee, including any Person who acquires the DB Team's Interest pursuant to foreclosure, transfer in lieu of foreclosure or similar proceeding, shall take the DB Team's Interest subject to, and shall be bound by, the Management Plans, the Key Contracts, the Standard Utility Agreements, all agreements between the transferor and railroads, the

Governmental Approvals, and all agreements between the transferor and Governmental Entities with jurisdiction over the Project or the Work, except to the extent otherwise accepted by SRTA in writing in its good faith discretion.

**21.4.3** Except with respect to assignments and transfers pursuant to foreclosure, transfer in lieu of foreclosure or similar proceeding, the transferor and Transferee shall give SRTA written notice of the assignment not less than thirty (30) days prior to the effective date thereof.

## **21.5 Change of Organization or Name**

**21.5.1** DB Team shall not change the legal form of its organization in a manner that adversely affects SRTA's rights, protections and remedies under the DB Documents without the prior written acceptance of SRTA, which consent may be granted or withheld in SRTA's sole discretion.

**21.5.2** In the event either Party changes its name, such Party agrees to promptly furnish the other Party with written notice of change of name and appropriate supporting documentation.

## **Article 22 RECORDS AND AUDITS; INTELLECTUAL PROPERTY**

### **22.1 Maintenance and Inspection of Records**

**22.1.1** DB Team shall keep and maintain at a single location as approved by SRTA all books, records and documents relating to the Project, Utility Adjustments or Work, including copies of all original documents delivered to SRTA. DB Team shall keep and maintain such books, records and documents in accordance with applicable provisions of the DB Documents, Section 2 of the Technical Provisions, and of the Management Plans, and in accordance with Good Industry Practice. DB Team shall notify SRTA where such records and documents are kept.

**22.1.2** DB Team shall make all its books, records and documents available for inspection by SRTA, its representatives and legal counsel at DB Team's principal offices in Georgia, at all times during normal business hours, without charge. SRTA may conduct any such inspection upon 48 hours' prior written notice, or unannounced and without prior notice where there is good faith suspicion of fraud. The right of inspection includes the right to make extracts and take notes. The provisions of this Article 22.1.2 are subject to the following:

**22.1.2.1** DB Team reserves the right to assert exemptions from disclosure for information that would be exempt under applicable State Law from discovery or introduction into evidence in legal actions; and

**22.1.2.2** Unless otherwise lawfully required by the FHWA, federal Law or the Open Government Laws, DB Team may make available copies of books, records and documents containing trade secrets and confidential proprietary information with such information redacted. Unless otherwise lawfully required by the FHWA, federal Law or the Open Government Laws, SRTA shall have no right to make extracts of such trade secrets and confidential proprietary information except in connection with resolution of Claims and Disputes.

**22.1.2.3** DB Team shall retain records and documents for a minimum of five (5) years after the date the record or document is generated; provided that if the DB Documents or applicable Law specify any longer time period for retention of particular records, such time period

shall control. With respect to records and documents generated prior to Final Acceptance, the time period for retention shall commence upon Final Acceptance. Notwithstanding the foregoing, all records which relate to Claims being processed or actions brought forth under the Dispute Resolution Procedures shall be retained and made available until any later date that such Claims and actions are finally resolved. Refer to Attachment 1 to Exhibit 8 regarding applicable Federal Requirements.

## **22.2 Audits**

**22.2.1** SRTA shall have such rights to review and audit DB Team, its Contractors and their respective books and records as and when SRTA deems necessary for purposes of verifying compliance with the DB Documents and applicable Law. Without limiting the foregoing, SRTA shall have the right to audit DB Team's Management Plans and compliance therewith, including the right to inspect Work and/or activities and to verify the accuracy and adequacy of the Management Plans and its component parts, plans and other documentation. SRTA may conduct any such audit of books and records upon 48 hours' prior written notice, or unannounced and without prior notice where there is good faith suspicion of fraud.

**22.2.2** All Claims filed against SRTA shall be subject to audit at any time following the filing of the Claim. The audit may be performed by employees of SRTA or by an auditor under contract with SRTA. Notice shall not be required before commencing any audit prior to sixty (60) days after the expiration of the term of this Agreement. Thereafter, SRTA shall provide twenty (20) days notice to DB Team, any Contractors or their respective agents before commencing an audit. DB Team, Contractors or their agents shall provide adequate facilities, acceptable to SRTA, for the audit during normal business hours. DB Team, Contractors or their agents shall cooperate with the auditors. Failure of DB Team, Contractors or their agents to maintain and retain sufficient books and records to allow the auditors to verify all or a portion of the Claim or to permit the auditor access to such books and records shall constitute a waiver of the Claim and shall bar any recovery thereunder. At a minimum, the auditors shall have available to them the following documents relating to the Claim:

- 22.2.2.1** Daily time sheets and supervisor's daily reports;
- 22.2.2.2** Union agreements;
- 22.2.2.3** Insurance, welfare, and benefits records;
- 22.2.2.4** Payroll registers;
- 22.2.2.5** Earnings records;
- 22.2.2.6** Payroll tax forms;
- 22.2.2.7** Material invoices and requisitions;
- 22.2.2.8** Material cost distribution work sheet;
- 22.2.2.9** Equipment records (list of company equipment, rates, etc.);
- 22.2.2.10** Contractors' (including Suppliers') invoices;

**22.2.2.11** Contractors' and agents' payment certificates;

**22.2.2.12** Canceled checks (payroll and Suppliers);

**22.2.2.13** Job cost report;

**22.2.2.14** Job payroll ledger;

**22.2.2.15** General ledger;

**22.2.2.16** Cash disbursements journal;

**22.2.2.17** All documents that relate to each and every Claim together with all documents that support the amount of damages as to each Claim; and

**22.2.2.18** Work sheets used to prepare the Claim establishing (a) the cost components of the Claim, including labor, benefits and insurance, materials, equipment, Contractors, all documents that establish the time periods, individuals involved, the hours for the individuals, and the rates for the individuals, and (b) the lost revenue components of the Claim.

**22.2.3** Full compliance by DB Team with the provisions of this Article 22.2 is a contractual condition precedent to DB Team's right to seek relief on a Claim under Article 17.7.

**22.2.4** Any rights of the FHWA to review and audit DB Team, its Contractors and their respective books and records are set forth in Attachment 1 to Exhibit 8.

**22.2.5** SRTA's right of audit include the right to observe the business operations of DB Team and its Contractors to confirm the accuracy of books and records.

**22.2.6** DB Team shall include in the Quality Management Plans internal procedures to facilitate review and audit by SRTA and, if applicable, FHWA.

**22.2.7** DB Team represents and warrants the completeness and accuracy in all material respects of all information it or its agents provides in connection with SRTA audits, and shall cause all Contractors other than Governmental Entities acting as Contractors to warrant the completeness and accuracy in all material respects of all information such Contractors provide in connection with SRTA audits.

**22.2.8** DB Team's internal and third party quality and compliance auditing responsibilities shall be set forth in the Quality Management Plans.

**22.2.9** Nothing in the DB Documents shall in any way limit the constitutional and statutory powers, duties and rights of elected State officials, including the independent rights of the State Auditor, in carrying out his or her legal authority. DB Team understands and acknowledges that (a) the State auditor may conduct an audit or investigation of any entity receiving funds from the State directly under this Agreement or indirectly through a Contract, (b) acceptance of funds directly under this Agreement or indirectly through a Contract acts as acceptance of the authority of the State auditor to conduct an audit or investigation in connection with those funds, and (c) an entity that is the subject of an audit or investigation must provide the State auditor with access to any information the State auditor considers relevant to the investigation or audit.

## **22.3 Open Government Laws and Freedom of Information Act**

**22.3.1** DB Team acknowledges and agrees that all Submittals, records, documents, drawings, Plans, specifications and other materials in SRTA's or GDOT's possession, including materials submitted by DB Team to SRTA and GDOT (whether directly or indirectly), are subject to the provisions of the Open Government Laws, subject only to certain exceptions and exemptions contained therein. DB Team also acknowledges that, pursuant to O.C.G.A. § 50-18-70(a), "records received or maintained by a private person, firm, corporation, or other private entity in the performance of a service or function for or on behalf of an agency, a public agency, or a public office shall be subject to disclosure to the same extent that such records would be subject to disclosure if received or maintained by such agency, public agency, or public office." If DB Team believes information or materials submitted or otherwise made available to SRTA or GDOT constitute trade secrets, proprietary information or other information that is not subject to the Open Government Laws or is excepted from disclosure under the Open Government Laws, DB Team shall be solely responsible for specifically and conspicuously designating that information by placing "CONFIDENTIAL" in the center header of each such document or page affected, as it determines to be appropriate. Any specific proprietary information, trade secrets or confidential commercial and financial information shall be clearly identified as such, and shall be accompanied by a concise statement of reasons supporting the claim. Nothing contained in this Article 22.3.1 shall modify or amend requirements and obligations imposed on SRTA or GDOT by the Open Government Laws or other applicable Law, and the provisions of the Open Government Laws or other Laws shall control in the event of a conflict between the procedures described above and the applicable Law. DB Team is advised to contact legal counsel concerning such Law and its application to DB Team.

**22.3.2** If SRTA or GDOT receives a request for public disclosure of materials marked "CONFIDENTIAL," SRTA or GDOT(as the case may be) will endeavor to notify DB Team of the request. DB Team may seek a protective order or other appropriate remedy. If SRTA or GDOT determines in good faith that the materials identified as "CONFIDENTIAL" are not exempt from the Open Government Laws, SRTA or GDOT will release the requested information within the applicable statutory time period, unless otherwise directed by an order of a court of competent jurisdiction. SRTA or GDOT shall make the final determination regarding whether the requested information is to be disclosed or withheld.

**22.3.3** In the event of any proceeding or litigation concerning the disclosure of any material submitted by DB Team to SRTA or GDOT, DB Team shall be fully responsible for otherwise prosecuting or defending any action concerning the materials at its sole cost and risk; provided, however, that the Attorney General of the State shall represent SRTA and GDOT who will participate in the litigation in such manner as they each may deem necessary or desirable. Except in the case of SRTA's or GDOT's voluntary intervention in litigation, DB Team shall pay and reimburse SRTA or GDOT (as the case may be) within thirty (30) days after receipt of written demand and reasonable supporting documentation for all costs and fees, including attorneys' fees and costs, SRTA or GDOT incurs in connection with any litigation, proceeding or request for disclosure.

**22.3.4** DB Team further acknowledges and agrees that all Submittals, records, documents, drawings, Plans, specifications and other materials in FHWA's possession may also be subject to disclosure under federal Law, including the Freedom of Information Act. DB Team's rights and obligations with respect to such disclosure shall be in accordance with such federal Law.

## **22.4 Intellectual Property**

**22.4.1** All Proprietary Intellectual Property, including with respect to Technology Enhancements, Source Code and Source Code Documentation, shall remain exclusively the property of DB Team or its Affiliates or Contractors that supply the same, notwithstanding any delivery of copies thereof to SRTA or GDOT.

**22.4.2** SRTA and GDOT shall have and is hereby granted a nonexclusive, transferable, irrevocable, fully paid up right and license to use, reproduce, modify, adapt and disclose, and sublicense others to use, reproduce, modify, adapt and disclose, the Proprietary Intellectual Property of DB Team, including with respect to Technology Enhancements, Source Code and Source Code Documentation, solely in connection with the Project and any Highway, tolled or not tolled, owned and operated by SRTA, GDOT or a State or regional Governmental Entity.

**22.4.3** Subject to the license and rights granted to SRTA and GDOT pursuant to Article 22.4.2, SRTA nor GDOT shall not at any time sell any Proprietary Intellectual Property of DB Team or use, reproduce, modify, adapt and disclose, or allow any party to use, reproduce, modify, adapt and disclose, any such Proprietary Intellectual Property for any other purpose not consistent with Article 22.4.2 above.

**22.4.4** The right to transfer the license is limited to any Governmental Entity that succeeds to the power and authority of SRTA or GDOT generally or with respect to the Project.

**22.4.5** The right to sublicense is limited to State or regional Governmental Entities that own or operate a Highway or other road, tolled or not tolled, and to the concessionaires, contractors, subcontractors, employees, attorneys, consultants and agents that are retained by or on behalf of SRTA, GDOT or any such State or regional Governmental Entity in connection with the Project or another Highway or other road, tolled or untolled. All such sublicenses shall be subject to Article 22.4.6.

**22.4.6** Subject to Article 22.3, SRTA and GDOT shall:

**22.4.6.1** Not disclose any Proprietary Intellectual Property of DB Team to any Person other than authorized transferees and sublicensees who agree to be bound by any confidentiality obligations of SRTA or GDOT relating thereto;

**22.4.6.2** Enter into a commercially reasonable confidentiality agreement if requested by DB Team with respect to the licensed Proprietary Intellectual Property; and

**22.4.6.3** Include, or where applicable require such State or regional Governmental Entity to include, in the contract with the sublicensee its covenant to employ sound business practices no less diligent than those used for its own confidential information, and no less diligent than required by commercially reasonable standards of confidentiality, to protect all Proprietary Intellectual Property of DB Team and other materials provided under the sublicense against disclosure to third parties not in receipt of a sublicense, and to use the sublicense only for the permitted purposes.

**22.4.7** Notwithstanding any contrary provision of the DB Documents, in no event shall SRTA, GDOT or any of their respective directors, officers, employees, consultants or agents be liable to DB Team, any Affiliate or any Contractor for any damages, including loss of profit, arising out of breach of the duty of confidentiality set forth in Article 22.4.6 if such breach is not the result

of gross negligence or intentional misconduct or is required under the provisions of the Open Government Records Law or a court order or other legal requirement.

**22.4.8** DB Team shall continue to have a full and complete right to use any and all duplicates or other originals of its Proprietary Intellectual Property in any manner it chooses.

**22.4.9** With respect to any Proprietary Intellectual Property, including with respect to Technology Enhancements, Source Code and Source Code Documentation, owned by a Person other than DB Team, including any Affiliate, and other than SRTA, GDOT or a Governmental Entity acting as a Contractor, DB Team shall obtain from such owner, concurrently with execution of any contract, subcontract or purchase order with such owner or with the first use or adaptation of the Proprietary Intellectual Property in connection with the Project, for DB Team, SRTA and GDOT, nonexclusive, transferable, irrevocable, fully paid up licenses to use, reproduce, modify, adapt and disclose such Proprietary Intellectual Property solely in connection with the Project and any Highway, tolled or not tolled, owned and operated by SRTA, GDOT or a State or regional Governmental Entity, of at least identical scope, purpose, duration and applicability as the license granted under Article 22.4.1. The foregoing requirement shall not apply, however, to mass-marketed software products (sometimes referred to as “shrink wrap software”) owned by such a Person where such a license cannot be extended to SRTA or GDOT using commercially reasonable efforts. The limitations on sale, transfer, sublicensing and disclosure by SRTA and GDOT set forth in Articles 22.4.3 through 22.4.6 shall also apply to SRTA’s and GDOT’s licenses in such Proprietary Intellectual Property.

## **22.5 Reserved**

# **Article 23 FEDERAL REQUIREMENTS**

## **23.1 Compliance with Federal Requirements**

DB Team shall comply and require its Contractors to comply with all Federal Requirements applicable to transportation projects that receive federal credit or funds, including those set forth in Exhibit 8. In the event of any conflict between any applicable Federal Requirements and the other requirements of the DB Documents, the Federal Requirements shall prevail, take precedence and be in force over and against any such conflicting provisions.

## **23.2 Role of and Cooperation with FHWA**

DB Team acknowledges and agrees that FHWA will have certain approval rights with respect to the Project, including the right to provide certain oversight and technical services with respect to the Work. DB Team shall cooperate with FHWA in the reasonable exercise of FHWA’s duties and responsibilities in connection with the Project and shall provide such assistance and information as may be required by SRTA and/or GDOT to comply with FHWA reporting requirements.

# **Article 24 MISCELLANEOUS**

## **24.1 Taxes**

DB Team shall pay, prior to delinquency, all applicable Taxes. DB Team shall have no right to a Compensation Event or any other Claim due to its misinterpretation of Laws respecting Taxes or incorrect assumptions regarding applicability of Taxes.

## **24.2 Amendments**

The DB Documents may be amended only by a written instrument duly executed by the Parties or their respective successors or assigns, except to the extent expressly provided otherwise in this Agreement.

## **24.3 Waiver**

**24.3.1** No waiver of any term, covenant or condition of this Agreement or the other DB Documents shall be valid unless in writing and signed by the obligee Party.

**24.3.2** The exercise by a Party of any right or remedy provided under this Agreement or the other DB Documents shall not waive or preclude any other or further exercise thereof or the exercise of any other right or remedy. No waiver by any Party of any right or remedy under this Agreement or the other DB Documents shall be deemed to be a waiver of any other or subsequent right or remedy under this Agreement or the other DB Documents. The consent by one Party to any act by the other Party requiring such consent shall not be deemed to render unnecessary the obtaining of consent to any subsequent act for which consent is required, regardless of whether similar to the act for which consent is given.

**24.3.3** Except as provided otherwise in the DB Documents, no act, delay or omission done, suffered or permitted by one Party or its agents shall be deemed to waive, exhaust or impair any right, remedy or power of such Party hereunder, or to relieve the other Party from the full performance of its obligations under this Agreement or the other DB Documents.

**24.3.4** Either Party's waiver of any breach or failure to enforce any of the terms, covenants, conditions or other provisions of the DB Documents at any time shall not in any way limit or waive that Party's right thereafter to enforce or compel strict compliance with every term, covenant, condition or other provision, any course of dealing or custom of the trade notwithstanding. Furthermore, if the Parties make and implement any interpretation of the DB Documents without documenting such interpretation by an instrument in writing signed by both Parties, such interpretation and implementation thereof will not be binding in the event of any future Disputes.

**24.3.5** Subject to Article 13.2.8, the acceptance of any payment or reimbursement by a Party shall not waive any preceding or then-existing breach or default by the other Party of any term, covenant or condition of this Agreement or the other DB Documents, other than the other Party's prior failure to pay the particular amount or part thereof so accepted, regardless of the paid party's knowledge of such preceding or then-existing breach or default at the time of acceptance of such payment or reimbursement. Nor shall such acceptance continue, extend or affect: (a) the service of any notice, any Claims or final judgment; (b) any time within which the other Party is required to perform any obligation; or (c) any other notice or demand.

## **24.4 Independent Contractor**

**24.4.1** DB Team is an independent contractor, and nothing contained in the DB Documents shall be construed as constituting any relationship with SRTA other than that of an independent contractor under this Agreement.

**24.4.2** Nothing in the DB Documents is intended or shall be construed to create any partnership, joint venture or similar relationship between SRTA and DB Team; and in no event

shall either Party take a position in any tax return or other writing of any kind that a partnership, joint venture or similar relationship exists. While the term “public-private partnership” may be used on occasion to refer to contractual relationships of the type hereby created, the Parties do not thereby express any intention to form or hold themselves out as a *de jure* or *de facto* partnership, joint venture or similar relationship, to share net profits or net losses, or to give SRTA control or joint control over DB Team’s financial decisions or discretionary actions concerning the Project and Work.

**24.4.3** In no event shall the relationship between SRTA and DB Team be construed as creating any relationship whatsoever between SRTA and DB Team’s employees. Neither DB Team nor any of its employees is or shall be deemed to be an employee of SRTA. Except as otherwise specified in the DB Documents, DB Team has sole authority and responsibility to employ, discharge and otherwise control its employees and has complete and sole responsibility as a principal for its agents, for all Contractors and for all other Persons that DB Team or any Contractor hires to perform or assist in performing the Work.

## **24.5 Successors and Assigns**

The DB Documents shall be binding upon and inure to the benefit of SRTA and DB Team and their permitted successors, assigns and legal representatives.

## **24.6 Designation of Representatives; Cooperation with Representatives**

**24.6.1** SRTA and DB Team shall each designate an individual or individuals who shall be authorized to make decisions and bind the Parties on matters relating to the DB Documents (“Authorized Representative”). In addition, for purposes of Project administration and oversight to be performed by GDOT as provided in this Agreement, GDOT shall designate an individual or individuals who shall be authorized to make decisions and bind GDOT and upon such person(s) direction DB Team may rely. Exhibit 22 provides the initial Authorized Representative designations. A Party may change such designations by a subsequent writing delivered to the other Party in accordance with Article 24.11. For purposes of this Agreement, the Parties, except where expressly stated to the contrary, all communications and deliveries, including submittals, shall be through the respective Authorized Representative for each party.

**24.6.2** DB Team shall cooperate with SRTA and all representatives of SRTA designated as described above.

## **24.7 Survival**

DB Team’s and SRTA’s representations, covenants, warranties, the dispute resolution provisions contained in Section 17.7, the express obligations of the Parties following termination, and all other provisions which by their inherent character should survive expiration or earlier termination of this Agreement and/or completion of the Work shall survive the expiration or earlier termination of this Agreement and/or the completion of the Work. The provisions of Section 17.7 shall continue to apply after expiration or earlier termination of this Agreement to all Claims and Disputes between the parties arising out of the DB Documents.

## **24.8 Limitation on Third Party Beneficiaries**

**24.8.1** It is not intended by any of the provisions of the DB Documents to create any third party beneficiary hereunder or to authorize anyone not a Party hereto to maintain a suit for

personal injury or property damage pursuant to the terms or provisions hereof, except to the extent provided in Article 24.9.2 and other specific provisions (such as the warranty and indemnity provisions) that identify third parties and state that they are entitled to benefits hereunder. Except as otherwise provided in this Article 24.8, the duties, obligations and responsibilities of the Parties to the DB Documents with respect to third parties shall remain as imposed by Law. The DB Documents shall not be construed to create a contractual relationship of any kind between SRTA and a Contractor or any Person other than DB Team.

**24.8.2** GDOT shall be a third party beneficiary, and entitled to the benefits, with respect to the rights under the DB Documents related to the following:

**24.8.2.1** Oversight, review, inspection, testing, monitoring, acceptance, and enforcement of DB Team's obligations to perform the design and construction of the Project in accordance with the DB Documents and applicable Law.

**24.8.2.2** Review, audit, inspection and copying of data, information, documents, books and records of DB Team and any other DB Team-Related Entity.

**24.8.2.3** Step in rights upon the occurrence of a DB Team Default.

## **24.9 No Personal Liability of SRTA or GDOT Employees; No Tort Liability**

**24.9.1** SRTA's and GDOT's officers, employees, representatives are acting solely as agents and representatives of such respective entities, as applicable, when carrying out the provisions of or exercising the power or authority granted to them under this Agreement and the DB Documents. They shall not be liable either personally or as employees of SRTA or GDOT for actions in their ordinary course of employment.

**24.9.2** The Parties agree to provide to each other with written notice of any claim which such Party may receive from any third party relating in any way to the matters addressed in this Agreement, and shall otherwise provide notice in such form and within such period as is required by Law.

## **24.10 Governing Law**

The DB Documents shall be governed by and construed in accordance with the laws of the State of Georgia.

## **24.11 Notices and Communications**

**24.11.1** Notices under the DB Documents shall be in writing and: (a) delivered personally; (b) sent by certified mail, return receipt requested; (c) sent by a recognized overnight mail or courier service, with delivery receipt requested, or (d) sent by facsimile or email communication followed by a hard copy and with receipt confirmed by telephone, to the following addresses (or to such other address as may from time to time be specified in writing by such Person):

**24.11.2** All notices, correspondence and other communications to DB Team shall be delivered to the following address or as otherwise directed by DB Team's Authorized Representative:

Robert W. Thompson Jr.  
1600 Kenview Drive, NW  
Marietta, Georgia 30060  
Telephone: (770) 422-7520  
Facsimile: (770) 422-9361  
E-mail: bobt@cwmatthews.com

**24.11.3** Regardless of whether STRA, GDOT, or both are identified in the DB Documents, all notices, correspondence, submittals, transmittals and any other communications shall be directed to GDOT's Authorized Representative. All notices, correspondence, submittals, transmittals, and other communications to STRA or GDOT shall be marked as regarding the "I-85 Widening Project" and shall be delivered to the following addresses or as otherwise directed by GDOT's Authorized Representative:

Christopher Tomlinson  
245 Peachtree Center Ave, NE Suite 2200  
Atlanta, Georgia 30303  
Telephone: (404) 893-6100  
Facsimile: (404) 893-6144  
E-mail: [ctomlinson@georgiatolls.com](mailto:ctomlinson@georgiatolls.com)

Darryl D. VanMeter, P.E.  
Georgia Department of Transportation  
Office of Innovative Delivery  
600 West Peachtree Street, Floor 19  
Atlanta, Georgia 30308  
E-mail: [dvanmeter@dot.ga.gov](mailto:dvanmeter@dot.ga.gov)

In addition, copies of all notices regarding Disputes, and termination and default notices shall be delivered to the following person:

State Road and Tollway Authority  
245 Peachtree Center Ave, NE Suite 2200  
Atlanta, Georgia 30303  
Attention: General Counsel  
Telephone: (404) 893-6100  
Facsimile: (404) 893-6144  
E-mail: [mmandus@georgiatolls.com](mailto:mmandus@georgiatolls.com)

Georgia Department of Transportation  
Office of General Counsel  
600 West Peachtree Street, Suite 2300  
Atlanta, Georgia 30308  
E-mail: [mcline@dot.ga.gov](mailto:mcline@dot.ga.gov)

**24.11.4** Notices shall be deemed received when actually received in the office of the addressee (or by the addressee if personally delivered) or when delivery is refused, as shown on the receipt of the U.S. Postal Service, private carrier or other Person making the delivery. Notwithstanding the foregoing, notices sent by facsimile after 12:00 p.m. Eastern Standard or

Daylight Time (as applicable) and all other notices received after 12:00 p.m. shall be deemed received on the first Business Day following delivery (that is, in order for a fax to be deemed received on the same day, at least the first page of the fax must have been received before 12:00 p.m.). Any technical or other communications pertaining to the Work shall be conducted by DB Team's Authorized Representative and technical representatives designated by GDOT.

#### **24.12 Integration of DB Documents**

SRTA and DB Team agree and expressly intend that, subject to Article 24.13, this Agreement, and other DB Documents constitute a single, non-severable, integrated agreement whose terms are interdependent and non-divisible.

#### **24.13 Severability**

**24.13.1** If any clause, provision, section or part of this Agreement or the other DB Documents or any other Principal Project Document (other than the Design-Build Contract) is ruled invalid (including invalid due to Change in Law) by a court having proper jurisdiction, then the Parties shall: (a) promptly meet and negotiate a substitute for such clause, provision, section or part, which shall, to the greatest extent legally permissible, effect the original intent of the Parties; and (b) if necessary or desirable, apply to the court or other decision maker (as applicable) which declared such invalidity for an interpretation of the invalidated portion to guide the negotiations. The invalidity or unenforceability of any such clause, provision, section or part shall not affect the validity or enforceability of the balance of the DB Documents or such other Principal Project Documents, which shall be construed and enforced as if the DB Documents or such other Principal Project Documents did not contain such invalid or unenforceable clause, provision, section or part.

**24.13.2** If after the efforts required by Article 24.13.1, the Parties mutually agree that without the section or part of the DB Documents or such other Principal Project Documents that the court ruled to be invalid, there is no interpretation or reformation of the DB Documents or such other Principal Project Documents that can reasonably be adopted which will return the Parties to the benefits of their original bargain, the Parties can mutually agree to treat the court order as a Termination by Court Ruling pursuant to Article 19.11.

#### **24.14 Headings**

The captions of the sections of this Agreement and in the DB Documents are for convenience only and shall not be deemed part of this Agreement or the DB Documents or considered in construing this Agreement or the DB Documents.

#### **24.15 Construction and Interpretation of the DB Documents**

**24.15.1** The language in all parts of the DB Documents shall in all cases be construed simply, as a whole and in accordance with its fair meaning and not strictly for or against any Party. The Parties hereto acknowledge and agree that the DB Documents are the product of an extensive and thorough, arm's length exchange of ideas, questions, answers, information and drafts during the Proposal preparation process, that each Party has been given the opportunity to independently review the DB Documents with legal counsel, and that each Party has the requisite experience and sophistication to negotiate, understand, interpret and agree to the particular language of the provisions of the DB Documents. Accordingly, in the event of an ambiguity in or Dispute regarding the interpretation of the DB Documents, the DB Documents

shall not be interpreted or construed against the Party preparing it, and instead other rules of interpretation and construction shall be utilized. SRTA's final answers to the questions posed during the Proposal preparation process for this Agreement shall in no event be deemed part of the DB Documents and shall not be relevant in interpreting the DB Documents except as they may clarify provisions otherwise considered ambiguous.

**24.15.2** The captions of the articles, sections and subsections herein are inserted solely for convenience and under no circumstances are they or any of them to be treated or construed as part of this instrument.

**24.15.3** References in this instrument to this "Agreement" mean, refer to and include this instrument as well as any riders, exhibits, addenda and attachments hereto (which are hereby incorporated herein by reference) or other documents expressly incorporated by reference in this instrument. Any references to any covenant, condition, obligation and/or undertaking "herein," "hereunder" or "pursuant hereto" (or language of like import) mean, refer to and include the covenants, conditions, obligations and undertakings existing pursuant to this instrument and any riders, exhibits, addenda, attachments or other documents affixed to or expressly incorporated by reference in this instrument. All terms defined in this instrument shall be deemed to have the same meanings in all riders, exhibits, addenda, attachments or other documents affixed to or expressly incorporated by reference in this instrument unless the context thereof clearly requires the contrary. Unless expressly provided otherwise, all references to exhibits, articles and sections refer to same as set forth in this Agreement. Where a specific section is referenced, such reference shall include all subsections thereunder. Unless otherwise stated in this Agreement or the other DB Documents, words that have well-known technical or construction industry meanings are used in this Agreement or the other DB Documents in accordance with such recognized meaning. All references to a subsection or clause "above" or "below" refer to the denoted subsection or clause within the section in which the reference appears. Wherever the word "including," "includes" or "include" is used in the DB Documents, it shall be deemed to be followed by the words "without limitation". Wherever reference is made in the DB Documents to a particular Governmental Entity, it includes any public agency succeeding to the powers and authority of such Governmental Entity.

**24.15.4** As used in this Agreement and the other DB Documents and as the context may require, the singular includes the plural and vice versa, and the masculine gender includes the feminine and vice versa.

## **24.16 Usury Savings**

The DB Documents are subject to the express condition that at no time shall either Party be obligated or required to pay interest on any amount due the other Party at a rate which could subject the other Party to either civil or criminal liability as a result of being in excess of the maximum non-usurious interest rate permitted by Georgia Law (the "maximum legal rate"), if any. If, by the terms of the DB Documents either Party at any time is obligated to pay interest on any amount due in excess of the maximum legal rate, then such interest shall be deemed to be immediately reduced to the maximum legal rate and all previous payments in excess of the maximum legal rate shall be deemed to have been payments in reduction of the principal amount due and not on account of the interest due. All sums paid or agreed to be paid to a Party for the use, forbearance, or detention of the sums due that Party under the DB Documents shall, to the extent permitted by applicable Georgia Law, be amortized, prorated, allocated, and spread throughout the full period over which the interest accrues until payment in full so that the rate or

amount of interest on account of the amount due does not exceed the maximum legal rate in effect from time to time during such period. If after the foregoing adjustments a Party still holds interest payments in excess of the maximum legal rate, it shall promptly refund the excess to the other Party.

#### 24.17 Acceptance under DB Documents

**24.17.1** Refer to Articles 6.3.3 and 6.3.4 regarding the standards for SRTA and GDOT acceptance or consent.

**24.17.2** In all cases where acceptance or consents are required to be provided under the DB Documents by DB Team and no particular standard for such acceptance or consents is expressly provided, such acceptance or consents shall not be unreasonably withheld or delayed. In cases where sole discretion is specified, DB Team's decision shall be final, binding and not subject to Dispute Resolution Procedures.

#### 24.18 Entire Agreement

This Agreement and the other DB Documents contain the entire understanding of the Parties with respect to the subject matter thereof and supersede all prior agreements, understandings, statements, representations and negotiations between the Parties with respect to their subject matter.

#### 24.19 Counterparts

This instrument may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

|  |  |
|--|--|
| CONTRACT IDENTIFICATION NUMBER           | DATE CONTRACT EXECUTED                 |
| B1CBA1701810-0                           | December 11, 2017                      |
| PROJECT NUMBER(S)                        | COUNTY(IES)                            |
| 110610                                   | Gwinnett, Barrow, and Jackson Counties |
| CONTRACTOR                               |  |
| C.W. Matthews Contracting Co., Inc.      |  |
| DESCRIPTION OF IMPROVEMENTS AND FACILITY |  |
| I-85 Widening Project                    |  |
| CONTRACT SUM                             |  |
| \$114,775,846.19                         |  |


[Signature Page Immediately Follows]

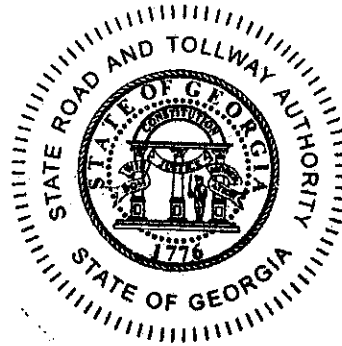
\_\_\_\_\_

By: *[Signature]*  
Name: \_\_\_\_\_ MICHAEL D. BELL  
Title: \_\_\_\_\_ EXECUTIVE VICE PRESIDENT & SECRETARY

By: B. M. Brown  
Name: \_\_\_\_\_  
Title: DB Team

BENNY M. BROWN  
DIV. VICE PRESIDENT  
& ASSISTANT SECRETARY

By:   
Name: Christopher Tomlinson  
Title: Executive Director



**EXHIBIT 1**

**ABBREVIATIONS AND DEFINITIONS**

Unless otherwise specified, wherever the following abbreviations or terms are used in this Agreement and the Technical Provisions, they have the meanings set forth below:

|               |   |
|---------------|---|
| <b>AASHTO</b> | American Association of State Highway and Transportation Officials                              |
| <b>ADA</b>    | Americans with Disabilities Act   |
| <b>AGC</b>    | Associated General Contractors of America   |
| <b>AMRL</b>   | AASHTO Materials Reference Laboratory   |
| <b>ANSI</b>   | American National Standards Institute   |
| <b>APE</b>    | Area of Potential Effects   |
| <b>ARC</b>    | Atlanta Regional Commission   |
| <b>AREMA</b>  | American Railway Engineering and Maintenance of Way Association                                 |
| <b>ASTM</b>   | American Society of Testing and Materials   |
| <b>ATC</b>    | Alternative Technical Concept   |
| <b>AVI</b>    | Automatic Vehicle Identification  |
| <b>AWS</b>    | American Welders Society  |
| <b>BMP</b>    | Best Management Practice  |
| <b>CAD</b>    | Computer Aided Design   |
| <b>CCTV</b>   | Closed Circuit Television   |
| <b>CE</b>     | Categorical Exclusion   |
| <b>CFR</b>    | Code of Federal Regulations   |
| <b>CMS</b>    | Changeable Message Sign   |
| <b>CPI</b>    | Consumer Price Index  |
| <b>CQMP</b>   | Construction Quality Management Plan  |
| <b>CSC</b>    | Customer Service Center   |
| <b>CSJ</b>    | Control Section Job   |
| <b>CWA</b>    | Clean Water Act   |
| <b>DB</b>     | Design-Build  |
| <b>DBE</b>    | Disadvantaged Business Enterprise, as set forth in 49 CFR Part 26                               |
| <b>DEIS</b>   | Draft Environmental Impact Statement  |
| <b>DMS</b>    | Dynamic Message Signs   |
| <b>DNR</b>    | Georgia Department of Natural Resources   |
| <b>DQMP</b>   | Design Quality Management Plan  |
| <b>DSS</b>    | Decent, Safe and Sanitary   |
| <b>EA</b>     | Environmental Assessment  |
| <b>EP</b>     | Extraction Procedure (toxicity)   |
| <b>EPD</b>    | Georgia Department of Natural Resources, Environmental Protection Division                      |
| <b>EPIC</b>   | Environmental Permits Issues and Commitments  |
| <b>ESA</b>    | Endangered Species Act of 1973, 16 U.S.C. §§ 1531 <i>et seq.</i> , as amended from time to time |

|                |   |
|----------------|---|
| <b>ETCS</b>    | Electronic Toll Collection System   |
| <b>FAA</b>     | Federal Aviation Administration   |
| <b>FAPG</b>    | Federal-Aid Policy Guide  |
| <b>FEMA</b>    | Federal Emergency Management Agency   |
| <b>FHWA</b>    | U.S. Federal Highway Administration   |
| <b>FEIS</b>    | Final Environmental Impact Statement  |
| <b>FONSI</b>   | Finding of No Significant Impact  |
| <b>FTP</b>     | File Transfer Protocol  |
| <b>FWCA</b>    | Fish and Wildlife Coordination Act, 16 U.S.C. §§661 <i>et seq.</i> , as amended from time to time           |
| <b>GDOT</b>    | Georgia Department of Transportation  |
| <b>GEPA</b>    | Georgia Environmental Policy Act, Section 12-16-1, <i>et seq.</i> of the Official Code of Georgia Annotated |
| <b>GIS</b>     | Geographical Information System   |
| <b>GP</b>      | General Purpose   |
| <b>HEC-FFA</b> | Hydraulic Engineering Circular – Flood Frequency Analysis   |
| <b>HCR</b>     | Highway Conditions Report   |
| <b>HOT</b>     | High Occupancy/Toll   |
| <b>HOV</b>     | High Occupancy Vehicle  |
| <b>ICD</b>     | Interface Control Document  |
| <b>ID</b>      | Form of Identification  |
| <b>IH</b>      | Interstate Highway  |
| <b>IRI</b>     | International Roughness Index   |
| <b>ISO</b>     | International Organization for Standardization  |
| <b>ITS</b>     | Intelligent Transportation System   |
| <b>IVHS</b>    | Intelligent Vehicle Highway System  |
| <b>IWP</b>     | Investigative Work Plan   |
| <b>LCS</b>     | Lane Control System   |
| <b>MARTA</b>   | Metropolitan Atlanta Rapid Transit Authority  |
| <b>MDS</b>     | Microwave Detection System  |
| <b>MOA</b>     | Memorandum of Agreement   |
| <b>MOT</b>     | Maintenance of Traffic  |
| <b>MOU</b>     | Memorandum of Understanding   |
| <b>MPH</b>     | Miles Per Hour  |
| <b>MPO</b>     | Metropolitan Planning Organization  |
| <b>MS4</b>     | Municipal Separate Storm Sewer System   |
| <b>MSDS</b>    | Materials Safety Data Sheets  |
| <b>MSE</b>     | Mechanically Stabilized Earth   |
| <b>MUTCD</b>   | Manual of Traffic Control Devices   |
| <b>NAVD</b>    | North American Vertical Datum   |
| <b>NBIS</b>    | National Bridge Inspection Standards  |

|                                 |   |
|---------------------------------|---|
| <b>NCHRP</b>                    | National Cooperative Highway Research Program   |
| <b>NEPA</b>                     | National Environmental Policy Act, 42 U.S.C. § 4321 <i>et seq.</i> , as amended from time to time |
| <b>NFIP</b>                     | National Flood Insurance Program  |
| <b>NOI</b>                      | Notice of Intent  |
| <b>NPDES</b>                    | National Pollutant Discharge Elimination System   |
| <b>NRCS</b>                     | Natural Resource Conservation Service   |
| <b>NRHP</b>                     | National Register of Historic Places  |
| <b>NTP</b>                      | Notice to Proceed   |
| <b>OCGA</b>                     | Official Code of Georgia Annotated  |
| <b>OCR</b>                      | Optical Character Recognition   |
| <b>ORT</b>                      | Open Road Toll  |
| <b>OSAH</b>                     | Georgia Office of State Administrative Hearings   |
| <b>OSHA</b>                     | Occupational Safety and Health Administration   |
| <b>OVT</b>                      | Owner Verification Tests  |
| <b>PA</b>                       | Programmatic Agreement  |
| <b>PACES</b>                    | Pavement Condition Evaluation System  |
| <b>PICP</b>                     | Public Information and Communications Plan  |
| <b>PLS</b><br>(or <b>RPLS</b> ) | Registered Professional Land Surveyor   |
| <b>PQMP</b>                     | Project Quality Management Plan   |
| <b>PUA</b>                      | Possession and Use Agreement  |
| <b>QMP</b>                      | Quality Management Plan   |
| <b>RFC</b>                      | Release for Construction  |
| <b>RFI</b>                      | Request for Information   |
| <b>RFQ</b>                      | Request for Qualifications  |
| <b>RFP</b>                      | Request for Proposals   |
| <b>RLM</b>                      | Residual Life Methodology   |
| <b>ROD</b>                      | Record of Decision  |
| <b>ROW</b>                      | Right of Way  |
| <b>ROW AM</b>                   | Right of Way Acquisition Manager  |
| <b>ROWIS</b>                    | Right of Way Information System   |
| <b>RTF</b>                      | Related Transportation Facilities   |
| <b>SDPP</b>                     | Special Deposit and Possession Procedure  |
| <b>SDEIS</b>                    | Supplemental Draft Environmental Impact Statement   |
| <b>SH</b>                       | State Highway   |
| <b>SHPO</b>                     | State Historic Preservation Officer   |
| <b>SOQ</b>                      | Statement of Qualifications   |
| <b>SOV</b>                      | Single Occupancy Vehicle  |
| <b>SSTR</b>                     | Single Slope Traffic Railing  |

|                  |   |
|------------------|---|
| <b>SRTA</b>      | State Road and Tollway Authority                                |
| <b>STA</b>       | State Transportation Agency                                     |
| <b>SUA</b>       | Standard Utility Agreement                                      |
| <b>SUE</b>       | Subsurface Utility Engineering                                  |
| <b>TCLP</b>      | Toxicity Characteristic Leaching Procedure                      |
| <b>TMC</b>       | Traffic Management Center                                       |
| <b>TMP</b>       | Transportation Management Plan                                  |
| <b>TOC</b>       | Toll Operations Center  |
| <b>UAM</b>       | Utility Accommodation Manual                                    |
| <b>UCS</b>       | User Classification Subsystem                                   |
| <b>UDC</b>       | Utility Design Coordinator                                      |
| <b>UJUA</b>      | Utility Joint Use Acknowledgment or Utility Joint Use Agreement |
| <b>UM</b>        | Utility Manager   |
| <b>US</b>        | United States Highway   |
| <b>USACE</b>     | United States Army Corps of Engineers                           |
| <b>U.S. DOT</b>  | United States Department of Transportation                      |
| <b>USFWS</b>     | United States Fish and Wildlife Service                         |
| <b>U.S. GAAP</b> | U.S. Generally Accepted Accounting Principles                   |
| <b>USPAP</b>     | Uniform Standard of Professional Appraisal Practices            |
| <b>UTM</b>       | Universal Transverse Mercator                                   |
| <b>VDS</b>       | Video Detection System  |
| <b>VES</b>       | Video Exception Sub-system                                      |
| <b>WBS</b>       | Work Breakdown Structure  |
| <b>WECS</b>      | Worksite Erosion Control Supervisor                             |
| <b>WTCS</b>      | Worksite Traffic Control Supervisor                             |
| <b>WUCS</b>      | Worksite Utility Coordination Supervisor                        |

**Abandonment** means that Design-Build Team abandons all or a material part of the Project, which abandonment shall have occurred if (a) Design-Build Team demonstrates through acts or omissions an intent not to continue, for any reason other than a Relief Event that materially interferes with ability to continue, to construct or operate all or a material part of the Project and (b) no significant Work (taking into account the Project Baseline Schedule, if applicable, and any Relief Event) on the Project or a material part thereof is performed for a continuous period of more than forty five (45) days.

**Addenda/Addendum** means supplemental additions, deletions, and modifications to the provisions of the RFP after the release of the draft RFP.

**Additional Properties** means those parcels or portions of property proposed by Design-Build Team in addition to the ROW, including with respect to an approved ATC or otherwise contiguous to the Property and to be used for Project or in connection with the construction thereof, all as expressly designated as “Additional Properties” within the Right of Way Acquisition Plan. Additional Properties shall not include any Project Specific Locations.

**Adjust** means to perform a Utility Adjustment.

**Administrative Information Submittals** means those submittals Proposers are required to submit with their respective Proposal.

**Adjustment** means a Utility Adjustment.

**Adjustment Standards** means the standard specifications, standards of practice, and construction methods that a Utility Owner customarily applies to facilities (comparable to those being Adjusted on account of the Project) constructed by the Utility Owner (or for the Utility Owner by its contractors), at its own expense. Unless the context requires otherwise, references in the DB Documents to a Utility Owner’s “applicable Adjustment Standards” refer to those that are applicable pursuant to Article 7.5.3 of the Agreement.

**Affiliate** means:

(a) any shareholder, member, partner or joint venture member of Design-Build Team,

(b) any Person which directly or indirectly through one or more intermediaries controls, or is controlled by, or is under common control with, Design-Build Team or any of its shareholders, members, partners or joint venture members; and

(c) any Person for which ten percent (10%) or more of the equity interest in such Person is held directly or indirectly, beneficially or of record by (i) Design-Build Team, (ii) any of Design-Build Team’s shareholders, members, partners or joint venture members or (iii) any Affiliate of Design-Build Team under clause (b) of this definition.

For purposes of this definition the term “control” means the possession, directly or indirectly, of the power to cause the direction of the management of a Person, whether through voting securities, by contract, family relationship or otherwise.

**Affidavit of Property Interest** means the form of documentation of Existing Utility Property Interests described in Section 6.2.4 of the Technical Provisions.

**Age** means the elapsed time since an Element was first constructed or installed or, if applicable, last reconstructed, rehabilitated, restored, renewed or replaced.

**Agreement, DBA, or DB Agreement** means this certain Design-Build Agreement executed by SRTA and Design-Build Team, including any and all exhibits, attachments, riders, and amendments thereto.

**Alternative Technical Concept (“ATC”)** means an alternative technical concept proposed by Design-Build Team pursuant to the terms set forth in the RFP.

**Apparent Successful Proposer**” means the Proposer with the apparent Successful Proposal, taking into consideration the evaluation criteria and procedures.

**Area of Potential Effects** means the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of Historic Properties, if such properties exist.

**Authorized Representative** has the meaning set forth in Article 24.6.1 of the Agreement, and shall be applicable person(s) and/or party(ies) authorized to act on behalf of each of SRTA, GDOT, and the Design-Build Team respectively, as initially set forth pursuant to Exhibit 22 of the Agreement. All notices, deliveries, responses, approvals, and other communications among SRTA, GDOT, and/or the Design-Build Team shall be directed to the respective Authorized Representative for each of the aforementioned, unless expressly provided to the contrary in this Agreement.

**Best Management Practices (BMP)** has the meaning set forth in *Storm Water Management For Construction Activities: Developing Pollution Prevention Plans and Best Management Practices* (EPA Document 832 R 92-005).

**Best Value Proposal** means the Proposal meeting the standards set by the RFP that GDOT determines, through the evaluation process and evaluation criteria described in this ITP, to present the best value and to be in the best interest of SRTA, GDOT, and the State.

**Betterment** has, with respect to a given Utility being Adjusted, the meaning (if any) set forth in the Utility Agreement(s) applicable to the Utility; in all other cases, “Betterment” means any upgrading of the Utility in the course of such Utility Adjustment that is not attributable to the construction of the Project and is made solely for the benefit of and at the election of the Utility Owner, including an increase in the capacity, capability, efficiency or function of an Adjusted Utility over that which was provided by the existing Utility. Notwithstanding the foregoing, the following are not considered Betterments unless otherwise provided in the applicable Utility Agreement(s):

- (a) any upgrading which is required for accommodation of the Project;
- (b) replacement devices or materials that are of equivalent standards although not identical;
- (c) replacement of devices or materials no longer regularly manufactured with an equivalent or next higher grade or size;
- (d) any upgrading required by applicable Law;

- (e) replacement devices or materials that are used for reasons of economy (e.g., non-stocked items may be uneconomical to purchase); and
- (f) any upgrading required by the Utility Owner's applicable Adjustment Standards.

With respect to any Replacement Utility Property Interest, "**Betterment**" has the meaning (if any) set forth in the applicable Utility Agreement(s). In all other cases, a Replacement Utility Property Interest shall be considered a Betterment, except to the extent that reinstallation of a Utility in the Replacement Utility Property Interest (i) is necessary in order to meet the requirements of the DB Documents, or (ii) is called for by Design-Build Team in the interest of overall economy for the Project.

**Business Day** means any day on which SRTA is officially open for business.

**Change in Law** means (a) the adoption of any Law after the date that is ninety (90) days prior to the Proposal Due Date, or (b) any change, amendment to, repeal or revocation of any Law or in the interpretation or application thereof by any Governmental Entity after the date that is ninety (90) days prior to the Proposal Due Date, in each case that is materially inconsistent with Laws in effect ninety (90) days prior to the Proposal Due Date; excluding, however, any such Change in or new Law that also constitutes or causes a change in or new Adjustment Standards, as well as any change in or new Law passed or adopted but not yet effective as of the date that is ninety (90) days prior to the Proposal Due Date.

**Change of Control** means any assignment, sale, financing, grant of security interest, transfer of interest or other transaction of any type or description, including by or through voting securities, asset transfer, contract, merger, acquisition, succession, dissolution, liquidation or otherwise, that results, directly or indirectly, in a change in possession of the power to direct or control or cause the direction or control of the management of Design-Build Team or a material aspect of its business. A change in the power to direct or control or cause the direction or control of the management of a shareholder, member, partner or joint venture member of Design-Build Team may constitute a Change of Control of Design-Build Team if such shareholder, member, partner or joint venture member possesses the power to direct or control or cause the direction or control of the management of Design-Build Team. Notwithstanding the foregoing, the following shall not constitute a Change of Control:

(a) A change in possession of the power to direct or control the management of Design-Build Team or a material aspect of its business due solely to a bona fide open market transactions in securities effected on a recognized public stock exchange, including such transactions involving an initial public offering;

(b) A change in possession of the power to direct or control the management of Design-Build Team or a material aspect of its business due solely to a bona fide transaction involving beneficial interests in the ultimate parent organization of a shareholder, member, partner or joint venture member of Design-Build Team, (but not if the shareholder, member, partner or joint venture member is the ultimate parent organization), unless the transferee in such transaction is at the time of the transaction suspended or debarred or subject to a proceeding to suspend or debar from bidding, proposing or contracting with any federal or State department or agency;

(c) An upstream reorganization or transfer of direct or indirect interests in Design-Build Team so long as there occurs no change in the entity with ultimate power to direct or control or cause the direction or control of the management of Design-Build Team;

(d) A transfer of interests between managed funds that are under common ownership or control other than a change in the management or control of a fund that manages or controls Design-Build Team;

(e) The exercise of minority veto or voting rights (whether provided by applicable Law, by Design-Build Team's organizational documents or by related member or shareholder agreements or similar agreements) over major business decisions of Design-Build Team, provided that if such minority veto or voting rights are provided by shareholder or similar agreements, SRTA has received copies of such agreements; or

**Change Order** means a written approval by SRTA, counter-signed by Design-Build Team, with respect to a SRTA Change or Change Request, which shall set forth any adjustments to the DB Contract Sum and/or the Contract Time, including on account of a Relief Event or Compensation Event, as provided in the Agreement.

**Change Request** means a written request from Design-Build Team seeking to change the character, quantity, quality, description, scope or location of any part of the Work, to modify the DB Documents.

**Chief Executive Officer of Design-Build Team** means the chief executive officer, president or other senior officer of Design-Build Team, or the governing body of Design-Build Team, in each case having authority to negotiate and resolve a Dispute with the Commissioner and bind Design-Build Team by his or her decision in regard to such Dispute.

**Claim** means (a) a demand by Design-Build Team, which is or potentially could be disputed by SRTA, for a time extension under the DB Documents, payment of money or damages from SRTA to Design-Build Team, or for payment from SRTA of a Compensation Amount or Termination Compensation, or (b) a demand by SRTA, which is or potentially could be disputed by Design-Build Team, for payment of money or damages from Design-Build Team to SRTA.

**Claimant** means any Person that would be entitled to protection of payment bond under Code Section 13-10-63, including any P&P Bonds.

**Code** has the meaning set forth in Recital C of the Agreement.

**Commissioner** means the Commissioner of GDOT appointed by the State Transportation Board and any successor thereto having substantially similar powers and authority.

**Communication Plan** has the meaning set forth in Section 3 of the Technical Provisions.

**Comparable Limited Access Highways** means Highways that have full control of access, are divided, have grade separations at intersections and are in other respects substantially similar to the Project and associated facilities, as applicable. For purposes of this definition, determination of what portions of the Limited Access Highway system are

substantially similar to the Project shall be based on any one or more of similar age, design, engineering, construction, topographical features, operating systems and features, or other features or situations, and/or based on a geographical area in which Highways have been or are susceptible to being affected by a common event (such as but not limited to hurricane or tornado). The presence or absence of tolling and tolling facilities shall not be a factor in determining whether a Highway is substantially similar to the Project.

**Compensation Amount** means the amount of compensation to be paid to Design-Build Team for a Compensation Event as set forth and subject to the limitations of the Agreement, including Article 13.2 therein.

**Compensation Event** means any of the following events, subject to any limitations, claims submission requirements and other conditions set forth in the Agreement, provided that no relief will be available to the extent that (i) the events are within Design-Build Team's control, or are due to any wrongful act, wrongful omission, negligence, recklessness, willful misconduct, breach of contract or Law or violation of a Governmental Approval of any of the Design-Build Team-Related Entities; (ii) the events (or the effects of such events) could have been avoided by the exercise of reasonable caution, due diligence, or other reasonable efforts by Design-Build Team:

- (a) Change in Law;
- (b) Discriminatory Action;
- (c) Material breach by GDOT of its material obligations under the Agreement or other DB Documents, including unreasonable failure to issue a certificate of Substantial Completion or a certificate of satisfaction of conditions precedent to Final Acceptance after Design-Build Team satisfies all applicable conditions and requirements for obtaining such a certificate;
- (d) GDOT-Caused Delay, other than with respect to GDOT's failure to provide response to Design-Build Team Submittals as provided under clause (d) of the definition of a GDOT-Caused Delay;
- (e) GDOT Change;
- (f) A GDOT Release of Hazardous Material or remediation of Pre-Existing Hazardous Materials, but excluding the extent of any Design-Build Team Release of Hazardous Materials;
- (g) Issuance by a court in a legal proceeding challenging any Approval of Environmental Documents or a temporary restraining order or other form of temporary injunction that prohibits prosecution of any material portion of the Work;
- (h) Any change in the design concept of the Project or any portion thereof resulting from judicial or administrative action taken with respect to a legal challenge to any Approval of Environmental Documents as compared to the design concept indicated in the alternative that was the subject of the Approval of Environmental Documents, except to the extent the change in design concept had already been incorporated into Design-Build Team's design schematics as approved pursuant to this Agreement;

(i) Subject to clause (n) of this definition, failure to obtain, or unreasonable and unjustified delay in obtaining or otherwise maintaining once issued, a Governmental Approval from any Governmental Entity, except to the extent that such failure or delay results from failure by any Design-Build Team-Related Entity to locate or design the Project or carry out the work in accordance with the Approval of Environmental Documents or other Governmental Approval (which failure may include (i) modification by or on behalf of Design-Build Team of the design concept included in the Approval of Environmental Documents, (ii) means or methods used by any Design-Build Team-Related Entity for carrying out the Work, or (iii) decision or action by or on behalf of Design-Build Team to use or acquire Additional Property);

(j) Latent defects in Existing Improvements, resulting in costs in excess of such amounts for which Design-Build Team is responsible including as set forth in Article 7.12 of the Agreement;

(k) GDOT's (i) lack of good and sufficient title to any parcel in the Existing Right of Way or the Proposed Right of Way, to the extent it interferes with or adversely affects performance of Work, (ii) inability or failure to obtain an interest (including by easement or other right of access) to real property not identified in the Proposed Right of Way and required for construction of the Project as demonstrated by Design-Build Team, exclusive of any Additional Properties, Project Specific Locations, or parcels that are solely for the convenience of Design-Build Team, to the extent it interferes with or adversely affects performance of Work, or (iii) the existence at any time following issuance of NTP 3 of any title reservation, condition, easement or encumbrance on any parcel in the Existing Right of Way or Property owned by GDOT, of record or not of record, to the extent it interferes with or adversely affects performance of Work, except any title reservations, conditions, easements or encumbrances (A) concerning Utilities or (B) caused, permitted or suffered by a Design-Build Team-Related Entity;

(l) Discovery of subsurface or latent physical conditions at the actual boring holes identified in the geotechnical reports included in the Reference Information Documents that differ materially from the subsurface conditions indicated in such geotechnical reports at such boring holes, excluding any such conditions known to Design-Build Team prior to the Proposal Due Date;

(m) Failure to obtain, or unreasonable and unjustified delay in obtaining, an approval from GDOT with respect to a Permitted Design Exception, except to the extent that such failure or delay in obtaining the GDOT approval results from failure by any Design-Build Team-Related Entity to carry out the Work in accordance with the DB Documents; or

(n) Failure to obtain, or unreasonable and unjustified delay in obtaining, a Governmental Approval required for a re-evaluation of a Approval of Environmental Documents due to an approved ATC; provided that Design-Build Team shall only be entitled to compensation for such failure or delay after expiration of the applicable GDOT Re-evaluation Period;

(o) Performance of work in or directly adjacent to the Construction Maintenance Limits or Operations and Maintenance Limits, as well as any work by Separate Contractors within the ROW, carried out by or on behalf of GDOT or a Governmental Entity, excluding any Utility Adjustment Work by a Utility Owner, that directly disrupts Design-Build Team's onsite Work, or other documented delays to the Critical Path of the Work directly caused a Separate Contractor working on behalf of GDOT or a Governmental Entity, all being subject to Article 17.4.2 of the Agreement; or

(p) Material modifications to the Approval of Environmental Documents as set forth pursuant to subpart (a) of the definition of Approval of Environmental Documents as provided in Exhibit 1 hereto, as a result of the Approval of Environmental Documents, and all approved supplements and re-evaluations pertaining to the Project as of the Effective Date as provided in subpart (b) of such definition, provided that any such modifications are not the result of an ATC, Additional Properties, or attributable to Design-Build Team's design.

**Compensation Event Notice** means the written notice submitted by Design-Build Team in accordance with Article 13.2 of the Agreement.

**Completed Payment Activity** means a Payment Activity that Design-Build Team has certified as acceptable and ready for the following activity to begin.

**Completion Date** means the date the DB Team has satisfied all conditions and requirements of and for a Completion Deadline, including Interim Completion Deadlines, the Substantial Completion Deadline, and Final Acceptance, as may be adjusted pursuant to any Supplemental Agreement, including on account of any Relief Events.

**Completion Deadline** means the critical milestones for commencement or completion of the Work as set forth in Exhibit 9 to the Agreement, including without limitation Interim Completion Deadlines, the Substantial Completion Deadline, and Final Acceptance Deadline, as may be adjusted upon approval of the Project Baseline Schedule as set forth in Article 3.3 of the Agreement, and as further adjusted pursuant to any Supplemental Agreement, including on account of any Relief Events.

**Conceptual Layout Plan** means the schematic layout which provides alignment and lane configuration information necessary to verify lane continuity and general scope compliance for the entire Project.

**Construction Commencement Date** means for the date on which Design-Build Team first commences construction of the Project or such relative phase thereof.

**Construction Documents** means all shop drawings, working drawings, fabrication plans, material and hardware descriptions, specifications, construction quality control reports, construction quality assurance reports and samples necessary or desirable for construction of the Project and/or the Utility Adjustments included in the Construction Work, in accordance with the DB Documents.

**Construction Maintenance Limits Plan** means the deliverable to identify the physical boundaries of Design-Build Team's maintenance responsibilities for the Construction Work.

**Construction Work** means all portions of the all Work necessary to build or construct, make, form, manufacture, furnish, install, supply, deliver or equip the Project and/or the Utility Adjustments. Construction Work includes landscaping.

**Construction Phase** has the meaning set forth in Section 23.1 of the Technical Provisions.

**Construction Phasing Plan** has the meaning set forth in Section 23.1 of the Technical Provisions.

**Contract** means any agreement, and any supplement or amendment thereto, by either (a) Design-Build Team with any other Person or Contractor, or (b) any Contractor with any Person or Subcontractor, to perform any part of the Work or provide any materials, equipment or supplies for any part of the Work, or any such agreement, supplement or amendment at a lower tier, between a Subcontractor and its lower tier sub-subcontractor or supplier. The term “Contract” excludes Utility Agreements and any agreement with SRTA or GDOT.

**Contract Item Agreement (CIA)** means an Agreement used for including Utility work in the Department’s project and performed by the Department’s Contractor awarded by competitive bid.

**Contract Sum** means the lump sum amount identified in the Agreement (preceding signatures under Article 24).

**Contract Time** means the time period provided for Design-Build Team’s completion of the Work as provided in Article 3.3.1 of the Agreement.

**Contractor** means any Person, including any Subcontractor with whom Design-Build Team has entered into any Contract to perform any part of the Work or provide any materials, equipment or supplies for the Project and/or the Utility Adjustments included in the Construction Work, on behalf of Design-Build Team. The term “Contractor” excludes SRTA and GDOT.

**Cost to Cure** means an appraisal method applied to estimate a proper adjustment for damages to a property that can be physically and economically corrected, as described in further detail in the GDOT ROW Manual.

**Critical Path** means the sequence of activities that must be completed on schedule for the entire Project to be completed on in accordance with the Milestone Deadlines. This is the longest duration path through the work plan, in terms of time, of logically connected activities on the Project Baseline Schedule ending with the relative Milestone Deadline in respect thereof.

**CSC Host** means the central computer system of SRTA or its contractor that supports customer service center account management functions for the Project.

**Customer Groups** means groups, Persons and entities having a perceived stake or interest in the Project, including: the media, elected officials, Governmental Entities, general public residing or working within the general vicinity of the Project or traveling within or across the limits of the Project, business owners within or adjacent to the Project corridor, Utility Owners, railroads, transportation authorities and providers, community groups, local groups (neighborhood associations, business groups, chambers of commerce, convention and visitors bureaus, contractors, etc.) and other Persons or entities affected by the Project, including those identified in Section 3.2 of the Technical Provisions.

**Customer Service Center (CSC)** means the facility used to service Users, including a database system that enables registration and maintenance of customer accounts.

**Day** or **day** means calendar day unless otherwise expressly specified.

**DBE Performance Plan** means Design-Build Team’s plan for meeting the DBE participation goals set forth in Article 10.9.2 of the Agreement. The DBE Performance Plan is Exhibit 14 to the Agreement.

**Decent, Safe and Sanitary (DSS)** means the condition of a dwelling such that it meets applicable housing and occupancy codes.

**Default Interest Rate** means the statutory interest rate applicable to GDOT for contract payment defaults.

**Default Termination Event** means each of the Design-Build Team Defaults listed in Article 19.3.1 of the Agreement.

**Defect** means any Work that does not otherwise conform with the DB Documents, or otherwise is a defect, whether by design, construction, installation, affecting the condition, use, functionality or operation of any portion of the Work which, ordinary wear and tear excepted, would cause or have the potential to cause one or more of the following:

- (a) a hazard, nuisance or other risk to public or worker health or safety, including the health and safety of Users;
- (b) a structural deterioration of the affected Element or any other part of the Project;
- (c) damage to a third party's property or equipment;
- (d) damage to the Environment;
- (e) failure of the affected Element or any other part of the Project to meet a Performance Requirement; or
- (f) failure of an Element to meet the Target for a measurement record as set forth in the columns headed "Target" and "Measurement Record" in the Performance and Measurement Table Baseline.

**Design-Build Agreement, DBA, or Agreement** means the agreement between the Proposer and GDOT requiring the Design-Build Team to design and construct the Project during the construction period.

**Design-Build Contract or DB Contract Sum** means the total contract sum to be paid to Design-Build Team on account of the fully and properly performed Work as set forth in the Agreement, as adjusted pursuant to Supplemental Agreements (including to reflect adjustments for Compensation Events or Change Orders as provided in the Agreement), including without limitation all of Design-Build Team's profit, fees, financing costs and interest expense for Design-Build Team Debt, all costs of work and services, materials, equipment, supplies, general conditions costs, overhead and administrative expenses, professional fees and subconsultant costs, acquisition and other costs associated with acquisition of any Approved Properties, insurance and bond premiums, sales taxes, assessments, tariffs, permit, license and registration fees, and all other related costs and expenses.

**Design-Build Documents or DB Documents** means those documents as set forth in Article 1.2 of the Agreement and all such other agreements entered into by GDOT and Design-Build Team or any Design-Build Team-Related Entity, or otherwise executed by Design-Build Team or a Design-Build Team-Related Entity and delivered to SRTA, with respect to or in connection with this Agreement, including without limitation Supplemental Agreements.

**Design-Build Period** means the period commencing with NTP 1 and ending when Design-Build Team achieves Final Acceptance.

**Design-Build Team** or **DB Team** means the party identified as such in the opening paragraph of this Agreement, together with its permitted successors and assigns.

**Design-Build Team Default** or **DB Team Default** has the meaning set forth in Article 17.1.1 of the Agreement.

**Design-Build Team's Interest** or **DB Team's Interest** means all right, title, and interest of Design-Build Team in, to, under or derived from the Agreement and the other DB Documents.

**Design-Build Team-Related Entities** or **DB Team Team-Related Entities** means (a) Design-Build Team, (b) Design-Build Team's shareholders, partners, joint venture members and/or members, (c) the Contractor and all other Subcontractors (including Suppliers), (d) any other Persons performing any of the Work, (e) any other Persons for whom Design-Build Team may be legally or contractually responsible, and (f) the employees, agents, officers, directors, shareholders, representatives, consultants, successors and assign of any of the foregoing; provided, however, that GDOT shall be considered a Design-Build Team-Related Entity.

**Design-Build Team Release(s) of Hazardous Material** or **DB Team Release(s) of Hazardous Material** means (a) Release(s) of Hazardous Material, or the exacerbation of any such release(s), attributable to the culpable actions, culpable omissions, negligence, willful misconduct, or breach of applicable Law or contract by any Design-Build Team-Related Entity; (b) Release(s) of Hazardous Materials arranged to be brought onto the Site or elsewhere by any Design-Build Team-Related Entity; regardless of cause, or (c) use, containment, storage, management, handling, transport and disposal of any Hazardous Materials by any Design-Build Team-Related Entity in violation of the requirements of the DB Documents or any applicable Law or Governmental Approval

**Design-Build Team Vehicle** or **DB Team Vehicle** means any vehicle authorized by Design-Build Team performing construction, maintenance or operation of the Project, or other related activity.

**Design Deviation** means any deviation from criteria defined in the GDOT Design Policy Manual as a "guideline". Failure to adhere to the "10 Controlling Criteria" mandated by FHWA and/or the GDOT Standard Design Criteria mandated by GDOT does not qualify as a Design Deviation.

**Design Documents** means all drawings (including plans, profiles, cross-sections, notes, elevations, typical sections, details and diagrams), specifications, reports, studies, calculations, electronic files, records and submittals necessary for, or related to, the design of the Project and/or the Utility Adjustments included in the Design Work and/or the Construction Work.

**Design Speed** means the speed used to determine the various geometric design features of the roadway.

**Design Submittal Guide** shall have the meaning set forth in Section 23.1 of the Technical Provisions.

**Design Work** means all Work of design, engineering or architecture for the Project or Utility Adjustments.

**Deviation** means any proposed or actual change, deviation, modification, alteration or exception from this Agreement, the Technical Provisions, Technical Documents or Governmental Approvals.

**Directive Letter** means the letter described in Article 14.3 of the Agreement.

**Disadvantaged Business Enterprise** or **DBE** has the meaning set forth 49 CFR 23 and further described in Attachment 6 to Exhibit 8 to the Agreement.

**Discipline Groups** has the meaning set forth in Section 23.3 of the Technical Provisions.

**Discriminatory** or **Discriminatory Action** means (a) materially more onerous application to Design-Build Team or the Project of changes or additions to Technical Provisions or Technical Documents than the application thereof to other Comparable Limited Access Highways, or (b) selective application of changes or additions to Technical Provisions or Technical Documents to Design-Build Team or the Project and not to other Comparable Limited Access Highways. Notwithstanding the foregoing, the following actions are not Discriminatory or Discriminatory Actions: (i) any such application in response to any act or omission by or on behalf of Design-Build Team in violation of Law or the DB Documents; (ii) Safety Compliance; (iii) any such application in response to a directive by the U.S. Department of Homeland Security or comparable State agency, unless such directive is directed solely at or solely affects the Project and such application requires specific changes in Design-Build Team's normal design, construction, operation or maintenance procedures in order to comply; and (iv) any other actions necessary to address potential safety concerns arising from a specific condition or feature peculiar to the Project.

**Dispute** means any Claim, dispute, disagreement or controversy between GDOT and Design-Build Team concerning their respective rights and obligations under the DB Documents, including concerning any alleged breach or failure to perform and remedies.

**Dispute Resolution Procedures** means the procedures for resolving Disputes set forth in Article 17.7 of the Agreement.

**Early Adjustment** means a Utility identified as such in Section 6 of the Volume 2.

**Early Portions of the Work** means those usable portions of the I-85 General Purpose lanes, which must be opened so that they are contiguous and sequential, as identified and numbered within Exhibit 2 of the Agreement; each of which must be completed within the Interim Completion Deadline identified in Exhibit 9 to the Agreement.

**Early Termination Date** means the effective date of termination of the Agreement for any reason prior to the stated expiration Final Acceptance Deadline, as specified in the relevant provisions of Article 19.

**Effective Date** means the date of the Agreement or such other date as shall be mutually agreed upon in writing by GDOT and Design-Build Team.

**Electronic Toll Collection System** or **ETCS** means the electronic toll collection system used for the collection of tolls based on the automatic identification and classification of vehicles using electronic systems, including its components, systems and subsystems, the hardware and physical infrastructure, and the software to be incorporated into the Project.

**Element** means an individual component, system or subsystem of the Work, included as an independent line item as provided on the approved Schedule of Values.

**Emergency** means an unforeseen event affecting the Project whether directly or indirectly which (a) causes or has the potential to cause disruption to the free flow of traffic on the Project or a threat to the safety of the public; (b) is an immediate or imminent threat to the long term integrity of any part of the infrastructure of the Project, to the Environment, to property adjacent to the Project or to the safety of Users or the traveling public; or (c) is recognized by the Georgia Department of Public Safety as an emergency.

**Engineer of Record** mean a licensed professional engineer on the Design-Build Team who is responsible and liable for the adequacy and safety of the design. This individual will sign and seal the Released for Construction plans, as well as revisions on construction and shop drawings.

**Environment** means air, soils, surface waters, groundwater, land, stream sediments, surface or subsurface strata, biological resources, including endangered, threatened and sensitive species, natural systems, including ecosystems, and historic, archeological and paleontological resources.

**Environmental Approvals** (also Environmental Document Approvals) means all Governmental Approvals arising from or required by any Environmental Law in connection with development of the Project, including approvals and permits required under NEPA/GEPA.

**Environmental Commitment (also Environmental Permits, Issues and Commitments)** means an environmental requirement that must be fulfilled before, during or after construction. Environmental Commitments include commitments to avoid impacts in specified areas, complete environmental investigations before construction impacts, or to perform specified actions after completion of construction.

**Environmental Documents** means all required documents and submittals pertaining to either federal or state laws and permits which are necessary to complete the Project. This may include but not be limited to NEPA, GEPA, and/or other state and federal environmental laws.

**Environmental Law** means any Law applicable to the Project or the Work regulating or imposing liability or standards of conduct that pertains to the Environment, Hazardous Materials, contamination of any type whatsoever, or environmental health and safety matters, and any lawful requirements and standards that pertain to the Environment, Hazardous Materials, contamination of any type whatsoever, or environmental health and safety matters, set forth in any permits, licenses, approvals, plans, rules, regulations or ordinances adopted, or other criteria and guidelines promulgated, pursuant to Laws applicable to the Project or the Work, as such have been or are amended, modified, or supplemented from time to time (including any present and future amendments thereto and reauthorizations thereof) including those relating to:

(a) The manufacture, processing, use, distribution, existence, treatment, storage, disposal, generation, and transportation of Hazardous Materials;

- (b) Air, soil, surface and subsurface strata, stream sediments, surface water, and groundwater;
- (c) Releases of Hazardous Materials;
- (d) Protection of wildlife, Threatened or Endangered Species, sensitive species, wetlands, water courses and water bodies, historical, archeological, and paleontological resources, vegetative buffers, and natural resources;
- (e) The operation and closure of underground storage tanks;
- (f) and safety of employees and other persons; and
- (g) Notification, documentation, and record keeping requirements relating to the foregoing.

Without limiting the above, the term “Environmental Laws” shall also include the following:

- (i) The National Environmental Policy Act (42 U.S.C. §§ 4321 *et seq.*), as amended;
- (ii) The Georgia Environmental Policy Act (Section 12-16-1, *et seq.* of the Official Code of Georgia Annotated), as amended;
- (iii) State species laws, including Georgia Endangered Wildlife Act and/or, Georgia Wildflower Preservation Act;
- (iv) The Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. §§ 9601 *et seq.*), as amended;
- (v) The Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (42 U.S.C. §§ 6901 *et seq.*);
- (vi) The Emergency Planning and Community Right to Know Act of 1986 (42 U.S.C. §§ 11001 *et seq.*), as amended;
- (vii) The Clean Air Act (42 U.S.C. §§ 7401 *et seq.*), as amended;
- (viii) The Federal Water Pollution Control Act, as amended by the Clean Water Act (33 U.S.C. §§ 1251 *et seq.*);
- (ix) The Resource Conservation and Recovery Act (42 U.S.C. §§ 6901, *et seq.*), as amended;
- (x) The Toxic Substances Control Act (15 U.S.C. §§ 2601 *et seq.*), as amended;
- (xi) The Hazardous Materials Transportation Act (49 U.S.C. §§ 1801 *et seq.*), as amended;
- (xii) The Oil Pollution Act (33 U.S.C. §§ 2701, *et seq.*), as amended;

- (xiii) The Federal Insecticide, Fungicide and Rodenticide Act (7 U.S.C. §§ 136 *et seq.*), as amended;
- (xiv) The Federal Safe Drinking Water Act (42 U.S.C. §§ 300 *et seq.*), as amended;
- (xv) The Federal Radon and Indoor Air Quality Research Act (42 U.S.C. §§ 7401 *et seq.*), as amended;
- (xvi) The Occupational Safety and Health Act (29 U.S.C. §§ 651 *et seq.*);
- (xvii) The Endangered Species Act (16 U.S.C. §§ 1531 *et seq.*), as amended;
- (xviii) The Fish and Wildlife Coordination Act (16 U.S.C. §§ 661 *et seq.*), as amended;
- (xix) The National Historic Preservation Act (16 U.S.C. §§ 470 *et seq.*), as amended;
- (xx) The Coastal Zone Management Act (33 U.S.C. §§ 1451 *et seq.*), as amended;
- (xxi) Georgia Water Quality Act (O.C.G.A. § 12-5-20);
- (xxii) Georgia Erosion and Sedimentation Act (O.C.G.A. § 12-7-1), as amended;
- (xxiii) Best Management Practices (O.C.G.A. § 12-7-6(b)(15)); and
- (xxiv) Georgia Underground Storage Act (O.C.G.A. § 12-13-1)).

**Escrow Agent** has the meaning set forth in Exhibit 24 of the Agreement.

**Exhibits** means all exhibits, riders, and other attachments to the DB Documents, including without limitation Volume 1, Volume 2, and Volume 3, as well as, any of the aforementioned, which are incorporated into any DB Documents by reference, and all amendments, modifications, and supplements thereto.

**Existing Improvements** means the existing highway, bridge, and related improvements as of the date that is ninety (90) days prior to the Proposal Due Date within the Construction Maintenance Limits.

**Existing Right of Way** or **Existing ROW** means any real property (which term is inclusive of all estates and interests in real property), improvements and fixtures (i) as provided in Article 2.2.1.1(a) of the Agreement and more specifically described and identified as “Existing ROW” within Exhibit 4, in which GDOT has a property right or interest, and (ii) any Proposed Right of Way, which GDOT at any time after the Effective Date, shall acquire a leasehold estate or other property interest. The term specifically includes all air space, surface rights and subsurface rights within the limits of the Existing Right of Way.

**Existing Utility Property Interest** means any right, title or interest in real property (e.g., a fee or an easement) claimed by a Utility Owner as the source of its right to maintain an existing Utility in such real property, which is compensable in eminent domain.

**Evaluation Score** means the numerical score resulting from the adjectival evaluation and numerical conversion of a particular portion of the Proposals.

**Federal Requirements** means the provisions required to be part of federal-aid construction contracts, including the provisions set forth in Exhibit 8 to the Agreement.

**Final Acceptance** means the occurrence of all the events and satisfaction of all the conditions set forth in Article 7.7.3 of the Agreement.

**Final Acceptance Date** means the date upon which Design-Build Team has satisfied all conditions of and for Final Acceptance and GDOT has certified same.

**Final Acceptance Deadline** means the deadline for achieving Final Acceptance, as set forth in the Milestone Schedule, as such deadline may be extended for any Relief Event or Change Order as and to extend provided in the Agreement.

**Final Design** shall have the meaning set forth in Article 3.3.1.2 of the Agreement.

**Final Plans** means the Design Documents which provide the complete and final documents necessary for the construction, operations, and maintenance of the Project or any portion thereof including any Utility Adjustments required by the Project.

**Final ROW Lines** means the final location of all Right of Way within the project limits.

**Fiscal Year** means the twelve (12) month fiscal year used by GDOT for budgeting purposes.

**Float** means the amount of time that any given activity or logically connected sequence of activities shown on the Preliminary Baseline Schedule and Project Baseline Schedule, as the case may be, may be delayed before it will affect completion of any Work as required to achieve any Milestone Schedule Deadline, including the Substantial Completion Deadline and Final Acceptance Deadline.

**Force Majeure Event** means the occurrence of any of the following events that materially and adversely affects performance of Design-Build Team's obligations, provided that such events (or the effects of such events) could not have been avoided by the exercise of caution, due diligence, or reasonable efforts by Design-Build Team: (a) war (including civil war and revolution), invasion, armed conflict, violent act of foreign enemy, military or armed blockade, or military or armed takeover of the Project, in each case occurring within the State; (b) any act of terrorism or sabotage that causes direct physical damage to the Project; (c) nuclear explosion or contamination, in each case occurring within the State; (d) riot and civil commotion on or in the immediate vicinity of the Project; (e) fire, explosion, flood, earthquake, hurricane, or tornado, in each case that causes direct physical damage to the Project; or (f) national or statewide (i.e. State of Georgia) strike that has a direct adverse impact on Design-Build Team's ability to obtain materials, equipment or labor for the Project.

**Formal Consultation** means during Section 7 Consultation (Endangered Species Act) that a Federal agency determines, through a biological assessment or other review, that its action is likely to adversely affect a listed species.

**GDOT** means the Georgia Department of Transportation, as set forth in the recitals of the Agreement, and any entity succeeding to the powers, authorities and responsibilities of GDOT invoked by or under the DB Documents.

**GDOT-Caused Delay** means any of the following events, to the extent they result in a material delay or interruption in performance of any material obligation under the Agreement, and provided such events are beyond Design-Build Team's control and are not due to any act, omission, negligence, recklessness, willful misconduct, breach of contract or Law of any of the Design-Build Team-Related Entities, solely to the extent not concurrent or overlapping with any delay attributable to Design-Build Team, and further provided that such events (or the effects of such events) could not have been avoided by the exercise of caution, due diligence, or reasonable efforts by Design-Build Team, and with respect to any Compensation Event, solely to the extent that the cumulative effect of any such delays as set forth below have or shall result in delays, after taking into account any available Float, in excess of ninety (90) days:

(a) Failure of GDOT to issue NTP 1 as provided pursuant to Article 3.3.1.1 of the Agreement and/or failure to issue NTP 2 or NTP 3 as provided pursuant to Article 3.3.1.2 and Article 3.3.1.3 of the Agreement;

(b) GDOT Changes;

(c) Failure of GDOT to provide the GDOT-Provided Approvals within the time periods set forth in Section 4.2.2 of the Technical Provisions, subject to Article 6.2.1 of the Agreement; or

(d) Failure of GDOT to provide responses to proposed schedules, plans, Design Documents, condemnation and acquisition packages, and other Submittals and matters submitted to GDOT after the Effective Date for which response is required under the DB Documents as an express prerequisite to Design-Build Team's right to proceed or act, within the time periods (if any) indicated in the DB Documents, or if no time period is indicated, within a reasonable time, taking into consideration the nature, importance and complexity of the submittal or matter, following delivery of written notice from Design-Build Team requesting such action in accordance with the terms and requirements of the DB Documents;

(e) Failure of GDOT to provide Design-Build Team with access to the Right of Way as required; or

(f) The occurrence of a GDOT Release of Hazardous Materials.

Any proper suspension of Work pursuant to Article 17.3.7 of the Agreement shall not be considered a GDOT -Caused Delay.

**GDOT Change** means:

(a) Any change in the scope of the Work or terms and conditions of the Technical Provisions or Technical Documents (including changes in the standards applicable to the Work) that GDOT has directed Design-Build Team to perform through a Supplemental Agreement as described in Article 14.1 of the Agreement or a Directive Letter pursuant to Article 14.3 of the Agreement; and

(b) Any other event that the DB Documents expressly state shall be treated as a GDOT Change.

**GDOT Claims Account** means the designated account for the benefit of GDOT and Design-Build Team to be administered and maintained by GDOT for payments on account of Claims as required by GDOT pursuant to Article 17.3.4.3 of the Agreement.

**GDOT Default** has the meaning set forth in Article 17.5.1 of the Agreement.

**GDOT Re-evaluation Period** means the specified amount of time set forth as a condition in an approved ATC for GDOT to obtain the applicable Governmental Approval required for a re-evaluation of the NEPA/GEPA Approval, prior to Design-Build Team being entitled to a Relief Event or Compensation Event; provided, however, that such time shall commence upon the date that GDOT has received a full and complete document package from Design-Build Team required for GDOT to process such re-evaluation.

**GDOT Release(s) of Hazardous Materials** means, except as provided below, the introduction in, on or under the Construction Maintenance Limits or Operation and Maintenance Limits of Hazardous Material directly by GDOT, and their respective agents and contractors (excluding Design-Build Team). GDOT Release(s) of Hazardous Material excludes, however, (i) any Hazardous Materials so introduced that are in or part of construction materials and equipment incorporated into the Project and (ii) any Hazardous Materials identified in the phase 1 investigation and report described in clause (i) of the definition of Pre-Existing Hazardous Materials.

**GDOT Standard Specifications** means the Georgia Department of Transportation Standard Specifications, Construction of Transportation Systems.

**General Purpose Lanes** means Limited Access Highway lanes within the Existing Right of Way other than the Managed Lanes.

**Geotechnical Engineering Reports** means the reports which meet the requirements described in Section 8.2 of the Technical Provisions.

**GEPA** means the Georgia Environmental Policy Act, as amended and as it may be amended from time to time.

**GEPA Approval** means the (a) GEPA document as approved by Georgia DOT including any studies, reports, Environmental Commitments, and all other procedural requirements and documents required for the Project or a portion of the Project, as (b) may be modified pursuant to all Georgia EPD, USACE, USFWS approvals, and approved supplements and re-evaluations pertaining to the Project.

**Good Industry Practice** means the exercise of the degree of skill, diligence, prudence and foresight which would reasonably and ordinarily be expected from time to time from a skilled and experienced designer, engineer, or constructor, seeking in good faith to comply with its contractual obligations, complying with the DB Documents, all applicable Laws and Governmental Approvals, and engaged in the same type of undertaking in the United States under similar circumstances and conditions.

**Governmental Approval** means any permit, license, consent, concession, grant, franchise, authorization, waiver, variance or other approval, guidance, protocol, mitigation agreement, special provision, or memoranda of agreement/understanding, and any amendment or modification of any of them provided by Governmental Entities including State, local, or

federal regulatory agencies, agents, or employees, which authorize or pertain to the Project or the Work.

**Governmental Entity** means any federal, State or local government and any political subdivision or any governmental, quasi-governmental, judicial, public or statutory instrumentality, administrative agency, authority, body or entity other than GDOT.

**Guarantor** means any Person that is the obligor under any guaranty in favor of GDOT required under the Agreement, including any Design-Build Guaranty.

**Hazardous Materials** means any element, chemical, compound, material or substance, whether solid, liquid or gaseous, which at any time is defined, listed, classified or otherwise regulated in any way under any Environmental Laws, or any other such substances or conditions (including mold and other mycotoxins or fungi) which may create any unsafe or hazardous condition or pose any threat to human health and safety. “Hazardous Materials” includes the following:

(a) Hazardous wastes, hazardous material, hazardous substances, hazardous constituents, and toxic substances or related materials, whether solid, liquid, or gas, including substances defined as or included in the definition of “hazardous substance”, “hazardous waste”, “hazardous material”, “extremely hazardous waste”, “acutely hazardous waste”, “radioactive waste”, “radioactive materials”, “bio-hazardous waste”, “pollutant”, “toxic pollutant”, “contaminant”, “restricted hazardous waste”, “infectious waste”, “toxic substance”, “toxic waste”, “toxic material”, or any other term or expression intended to define, list or classify substances by reason of properties harmful to health, safety or the indoor or outdoor environment (including harmful properties such as ignitability, corrosivity, reactivity, carcinogenicity, toxicity, reproductive toxicity, “TCLP” toxicity” or “EP toxicity” or words of similar import under any applicable Environmental Laws);

(b) Any petroleum, including crude oil and any fraction thereof, and including any refined petroleum product or any additive thereto or fraction thereof or other petroleum derived substance; and any waste oil or waste petroleum byproduct or fraction thereof or additive thereto;

(c) Any drilling fluids, produced waters and other wastes associated with the exploration, development or production of crude oil, natural gas or geothermal resources;

(d) Any flammable substances or explosives;

(e) Any radioactive materials;

(f) Any asbestos or asbestos-containing materials;

(g) Any lead and lead-based paint;

(h) Any radon or radon gas;

(i) Any methane gas or similar gaseous materials;

(j) Any urea formaldehyde foam insulation;

(k) Electrical equipment which contains any oil or dielectric fluid containing regulated levels of polychlorinated biphenyls;

(l) Pesticides;

(m) Any other chemical, material or substance, exposure to which is prohibited, limited or regulated by any Governmental Entity or which may or could pose a hazard to the health and safety of the owners, operators, Users or any Persons in the vicinity of the Project or to the indoor or outdoor Environment; and

(n) Soil, or surface water or ground water, contaminated with Hazardous Materials as defined above.

**Hazardous Materials Management** means procedures, practices and activities to address and comply with Environmental Laws and Environmental Approvals with respect to Hazardous Materials encountered, impacted, caused by or occurring in connection with the Project or the Work, as well as investigation and remediation of such Hazardous Materials. Hazardous Materials Management may include sampling, stock-piling, storage, backfilling in place, asphalt batching, recycling, treatment, clean-up, remediation, transportation and/or off-site disposal of Hazardous Materials, whichever approach is effective, most cost-efficient and authorized under applicable Law.

**Highway** means a travel way for vehicular traffic that is included in the State or federal highway system.

**Highway Service Systems** means GDOT's or a Governmental Entity's lighting and electrical systems, traffic control systems, communications systems and irrigation systems serving street or highway purposes (including ITS and Intelligent Vehicle Highway System facilities).

**Historic Property** means any prehistoric or historic district, site, building, structure or object included in, or eligible for inclusion in, either the National Register of Historic Places or the Georgia Register of Historic Places.

**HOV** means a passenger vehicle carrying a specified minimum number of passengers. HOVs include carpools, vanpools and buses.

**Immigration Act** means the Georgia Immigration & Compliance Act, O.C.G.A. § 13-10-90, *et seq.* as set forth in Article 10.6.4 of the Agreement.

**Incident** means any unplanned event during the course of construction.

**Incident Management Plan** means Design-Build Team's plan for detection and response to Incidents or Emergencies, as part of the PMP.

**Indemnified Parties** means GDOT, the State, the State Transportation Board, and their respective successors, assigns, officeholders, officers, directors, commissioners, agents, representatives, consultants and employees. Indemnified Party shall mean any of the aforementioned.

**Informal Consultation** means during Section 7 Consultation (Endangered Species Act) that a Federal agency determines that its action may affect a listed species.

**ITP or Instructions to Proposers** means the document that provides instructions to be followed by Proposers in their responses to the RFP.

**Insurance Policies** means all of the insurance policies Design-Build Team is required to carry pursuant to Article 16.1 and Exhibit 17 of the Agreement.

**Intellectual Property** means all current and future legal and/or equitable rights and interests in know-how, patents (including applications), copyrights (including moral rights), trademarks (registered and unregistered), service marks, trade secrets, designs (registered and unregistered), utility models, circuit layouts, plant varieties, business and domain names, inventions, solutions embodied in technology, and other intellectual activity, and applications of or for any of the foregoing, subsisting in or relating to the Project, Project design data or Project traffic data. Intellectual Property includes toll-setting and traffic management algorithms, and software used in connection with the Project (including but not limited to software used for management of traffic on the Project), and Source Code. Intellectual Property also includes the trade secret information contained in proprietary pricing information. Intellectual Property is distinguished from physical construction and equipment itself and from drawings, plans, specifications, layouts, depictions, manuals and other documentation that disclose Intellectual Property.

**Intelligent Transportation System (ITS)** has the meaning set forth in Section 17 of the Technical Provisions.

**Intelligent Vehicle Highway System (IVHS)** means smart vehicle and smart highway technologies to improve the safety, efficiency and environmental impact of highway facilities.

**Interim Completion Date** means the date upon which Design-Build Team has satisfied all conditions for opening an Early Portion of the Work so that it is safe to open to the traveling public.

**Interim Completion Deadline** means the deadline and required date for each of the Early Portions of the Work, which portions are shown in Exhibit 2 to the Agreement, Interim Completion Deadlines are set forth in the Milestone Schedule shown on Exhibit 9 to the Agreement, as such deadline(s) may be extended for Relief Events pursuant to the Agreement..

**Interim Design** means any submittal of Design Documents after the Preliminary Plans have been accepted but prior to submittal of Final Plans for the entire Project or any approved Project segment. Interim Designs are intended to resolve conflicts and unresolved comments from the Preliminary Plans submittal.

**Key Contract** means any one of the following Contracts for Work that Design-Build Team or Design-Build Team's Contractor's causes to be performed:

- (a) All prime construction Contracts;
- (b) All project or program management services, architectural design, or engineering Contracts; and

(c) All other Contracts with a single Contractor or Subcontractor which individually or in the aggregate total in excess of \$25 million.

**Key Contractor** means any Contractor or Subcontractor, as the case may be, under any Key Contract.

**Key Personnel** means those individuals appointed by Design-Build Team and approved by GDOT from time to time to fill the “Key Personnel” positions. The specific individuals appointed by Design-Build Team and approved by GDOT to initially fill certain of the Key Personnel positions are identified in Exhibit 2 to the Agreement.

**Landscape Enhancement Plan** has the meaning set forth in Section 15.2.2 of the Technical Provisions.

**Latent Defects Deductible** has the meaning set forth in Article 7.12.2.1 of the Agreement.

**Law** or **Laws** means (a) any statute, law, code, regulation, ordinance, rule or common law, (b) any binding judgment (other than regarding a Claim or Dispute), (c) any binding judicial or administrative order or decree (other than regarding a Claim or Dispute), (d) any written directive, guideline, policy requirement or other governmental restriction (including those resulting from the initiative or referendum process, but excluding those by GDOT within the scope of its administration of the DB Documents or in the normal course of its adoption of new or revised technical standards pursuant to Article 7.2.5 of the Agreement) or (e) any similar form of decision of or determination by, or any written interpretation or administration of any of the foregoing by, any Governmental Entity, in each case which is applicable to or has an impact on the Project or the Work, whether taking effect before or after the Effective Date, including Environmental Laws. “Laws”, however, excludes Governmental Approvals.

**Lead Contractor** shall mean the entity designated as a Proposer’s “Lead Contractor” in its SOQ. There may only be one Lead Contractor per Proposer team.

**Lead Engineering Firm** shall mean the entity designated as a Proposer’s “Lead Engineering Firm” in its SOQ. There may only be one Lead Engineering Firm per Proposer team.

**Line** or **line** means, in the context of Utilities or Highway Service Systems, a line, pipeline, conduit or cable used for utility purposes, including underground, surface or overhead facilities.

**Liquidated Damages** means such liquidated damages as may accrue and be due and payable by Design-Build Team to GDOT as set forth under Article 17.4 of the Agreement and as set forth under Exhibit 18 thereto.

**Loss** or **Losses** means any loss, damage, injury, liability, obligation, cost, response cost, expense (including attorneys’, accountants’ and expert witnesses’ fees and expenses (including those incurred in connection with the enforcement of any indemnity or other provision of the Agreement)), fee, charge, judgment, penalty or fine. Losses include injury to or death of persons, damage or loss of property, and harm or damage to natural resources.

**Major Culvert** means a culvert that provides an opening of more than 35 square feet in a single or multiple installations. A major culvert may consist of a single round pipe, pipe arch, open or closed-bottom box, bottomless arch, or multiple installations of these structures placed adjacent or contiguous as a unit. Certain major culverts are classified as bridges when they provide an opening of more than 20 feet, measured parallel to the roadway; such culverts may be included in the bridge inventory.

**Major Non-Participating Member** means a Proposer's Lead Contractor and Lead Engineering Firm. If any of these entities qualify as a Participating Member, then that entity shall not be treated as a Major Non-Participating Member. Major Non-Participating Members are not considered Contractors to Proposer regardless of their role in the performance of Project-related services.

**Major River Crossing** means a crossing with a 100-year storm event flow in excess of 10,000 cubic feet per second (cfs).

**Managed Lanes** means Limited Access Highway lanes located within the Property that increase traffic efficiency by using various design and operational strategies (including congestion priced tolls), including the Electronic Toll Collection System for such lanes.

**Management Plans** means all of the management plans identified in Section 2 of the Technical Provisions.

**Maximum Payment Curve** means a price-loaded Project Baseline Schedule. Acceptance of the Maximum Payment Curve is a pre-condition to issuance of NTP3.

**Memorandum of Understanding (MOU)** means a formal agreement between GDOT and one or more agencies, organizations or providers.

**Milestone Deadline** shall have the same meaning as any Milestone Schedule Deadline.

**Milestone Schedule** means the schedule of deadlines set forth in Exhibit 9 to the Agreement, as may be adjusted upon approval of the Project Baseline Schedule as set forth in Article 3.3 of the Agreement and as may be further adjusted pursuant to any Supplemental Agreement, including on account of any Relief Events.

**Minor Culvert** means any culvert not classified as a Major Culvert.

**Mobilization** means Work to establish and remove offices, plants, and facilities; and to move personnel, equipment, and supplies to and from the Project site to begin Work or complete Work.

**NaviGator Contractor** means that certain Separate Contractor engaged by GDOT to provide the NaviGator System to be included and integrated into the ITS to be incorporated into the Project.

**NaviGator System** means the "NaviGator" advanced transportation management system to be included as a part of the ITS as set forth pursuant to Section 17.1.3 of the Technical Provisions.

**NaviGator Work** means the work to be provided by the NaviGator Contractor, coordinated with the Work, for completion of the NaviGator System for the Project.

**NEPA** means the National Environmental Policy Act, 42 U.S.C. § 4321 *et seq.*, as amended and as it may be amended from time to time.

**NEPA Approval** means the (a) NEPA document as approved by FHWA including any studies, reports, Environmental Commitments, and all other procedural requirements and documents required for FHWA approval for the Project or a portion of the Project, as (b) may be modified pursuant to all approved supplements and re-evaluations pertaining to the Project.

**NEPA Finality Date** means the date NEPA Approval becomes final and non-appealable and the federal statute of limitations for commencing legal action to challenge the validity of any NEPA Approval has expired.

**Nonconforming Work** means Work that does not conform to the requirements of the DB Documents, the Governmental Approvals, applicable Law or the Design Documents.

**Notice of Termination for Convenience** means written notice issued by GDOT to Design-Build Team terminating the Agreement in whole or in part for convenience.

**NTP** means a written notice issued by GDOT to Design-Build Team authorizing Design-Build Team to proceed with the portion or phase of the Work as being designated as subject to such notice to proceed in the Preliminary Baseline Schedule, the Project Baseline Schedule, or otherwise in the Agreement Documents, including without limitation NTP 1, NTP 2, and NTP 3.

**NTP 1** means a written notice issued by GDOT to Design-Build Team authorizing Design-Build Team to proceed with the portion of the Work described in Article 3.3.1.1 of the Agreement.

**NTP 2** means a written notice issued by GDOT to Design-Build Team authorizing Design-Build Team to proceed with the portion of the Work described in Article 3.3.1.2 of the Agreement.

**NTP 3** means a written notice issued by GDOT to Design-Build Team pursuant to Article 3.3.1.3 of the Agreement authorizing Design-Build Team to proceed with the remaining Work and other activities pertaining to the Project.

**NTP 1 Conditions Deadline** means the outside date set forth in the Milestone Schedule (or the Project Baseline Schedule as to the extent such outside date is adjusted thereby) by which Design-Build Team is obligated under the Agreement to satisfy all conditions to issuance of NTP 1, as such deadline may be extended for Relief Events from time to time pursuant to the Agreement.

**NTP 2 Conditions Deadline** means the outside date set forth in the Milestone Schedule (or the Project Baseline Schedule as to the extent such outside date is adjusted thereby) by which Design-Build Team is obligated under the Agreement to satisfy all conditions to issuance of NTP 2, as such deadline may be extended for Relief Events from time to time pursuant to the Agreement.

**NTP 3 Conditions Deadline** means the outside date set forth in the Milestone Schedule (or the Project Baseline Schedule as to the extent such outside date is adjusted thereby) by which Design-Build Team is obligated under the Agreement to satisfy all conditions to issuance of NTP 3, as such deadline may be extended for Relief Events from time to time pursuant to the Agreement.

**Open Book Basis** means allowing the relevant Party to review all underlying assumptions and data associated with the issue in question, including, but not limited to, assumptions as to costs of the Work, schedule, composition of equipment spreads, equipment rates, labor rates, productivity, estimating factors, design and productivity allowance, contingency and indirect costs, risk pricing, discount rates, interest rates, inflation and deflation rates, and other items reasonably required by the relevant Party.

**Open Government Laws** mean, collectively, the Georgia Open Records Act, Ga. Code Ann. §§ 50-18-70 *et seq.*, Section 32-2-80(a)(40) of the Code and Section 672-17.06 of the Rules, as amended from time to time.

**Open Road Toll (ORT)** means toll collection conducted (a) exclusively via vehicle identification with transponders and/or video capture of the license plate and (b) in an open multilane free-flow highway environment with no constraints on speed, vehicle type or vehicle location.

**Optical Character Recognition (OCR)** means the process of converting an image to text.

**Owner Verification Tests (OVT)** means the material tests performed in accordance with the applicable GDOT test method to verify the accuracy of the tests performed by Design-Build Team and pursuant to the approved Quality Management Plan to ensure that only materials of specified quality or better are accepted and incorporated into the Project.

**P&P Bonds** means the bonds meeting the requirements of Article 16.2.1 of the Agreement.

**P&P Obligor** means the Person identified as the obligor or account party in the P&P Bonds, as applicable.

**Participating Agency** means a public, quasi-public, or private agency that has agreed to cooperate with and assist Design-Build Team during an Emergency.

**Participating Member** means (a) if the Proposer is a joint venture, partnership, or limited liability company, each member of the joint venture, partnership or limited liability company; or (b) if the Proposer is a corporation or other corporate entity, the Proposer.

**Party** means Design-Build Team or GDOT, as the context may require, and **"Parties"** means Design-Build Team and GDOT, collectively.

**Payment Activity** means completion of an Element of the Work for which payment on account of the DB Contract Sum shall be due, subject to the terms of this Agreement and as follows:

(a) The first Payment Request (after NTP 1) may include the Payment and Performance Bond amounts;

(b) The first Payment Request (after NTP 3) may include up to 50% of the amount for Mobilization set forth in the Proposal, or 3% of the of the construction cost set forth in the Schedule of Values, whichever is less;

(c) When 5% of the construction cost set forth in the approved Schedule of Values is incurred, the next Payment Request may include up to 100% of the amount of Mobilization set forth in the Proposal, or 3% of the construction cost set forth in the approved Schedule of Values, whichever is less, minus any previous payments;

(d) Design-Build Team's indirect costs such as administration, contingencies, site cleanup and maintenance, access, off site access roads and security costs related to design-build costs shall be prorated through all Payment Activities.

**Payment for Work Product** means the partial compensation to be paid to Design-Build Team as described in Form N to the ITP.

**Payment Request** means the request for payment on account of the Work all in accordance with the terms and conditions set forth in GDOT Standard Specification 109.03.

**Permitted Design Exceptions** means design exceptions identified in Section 11.2 Technical Provisions that are allowed to be implemented on the Project.

**Person** means any individual, corporation, joint venture, limited liability company, company, voluntary association, partnership, trust, unincorporated organization, Governmental Entity, or GDOT.

**Phase 1 Hazardous Materials Investigation** means an environmental assessment conducted in accordance with the DB Documents and ASTM E-1527-05, or any future revision or replacement thereof, to identify Recognized Environmental Conditions and potential Recognized Environmental Conditions.

**Plans** means (only where capitalized) contract drawings, working drawings, supplemental drawings, detail sheets or exact reproductions thereof, which show the location, character, dimensions and details of the Construction Work to be done.

**Pre-existing Hazardous Materials** means Hazardous Materials that meet all the following criteria:

(a) The Hazardous Materials are in, on or under the Right of Way as of the date SRTA or GDOT makes available to Design-Build Team the affected parcel; or

(b) The Hazardous Materials are not located in, on or under any Project Specific Locations or Additional Properties, except Additional Properties required due to GDOT Changes (including GDOT Changes regarding the initial construction).

For purposes of determining whether Hazardous Materials were in, on or under the Right of Way or any Additional Properties required by GDOT to be included in the Property as a result of GDOT Changes, as of the date on which GDOT makes available to Design-Build Team the

affected parcel, Design-Build Team shall have the burden of proof to demonstrate it was not a Design-Build Team Release of Hazardous Materials:

(i) As to any Hazardous Materials not identified as being present as of such date in the following: The phase 1 investigations of the Project conducted by GDOT prior to the Effective Date or any Phase 1 Hazardous Materials Investigation or Phase 2 Hazardous Materials Investigation supplementing the foregoing report prepared as and when set forth in Article 7.8.1 of the Agreement; and

(ii) As to any Additional Properties required by GDOT to be included in the Property as a result of GDOT Changes, any Phase 1 Hazardous Materials Investigation thereof prepared and delivered as and when set forth in Article 7.8.1 of the Agreement.

For the purpose of this definition, “makes available” means:

(x) The Effective Date, except for parcels not yet acquired as of the Effective Date; and

(y) As to parcels not yet acquired as of the Effective Date and as to Additional Properties required by GDOT to be included in the Property as a result of GDOT Changes, the date Design-Build Team first receives the right to take and maintain possession of the parcel for all purposes for the remainder of the Term in accordance with the DB Documents, including commencement of construction, as the result of GDOT’s having secured title or right of possession by contract or title instrument or by a special commissioners’ award through the

**Preliminary Baseline Schedule** means the high level, logic based, critical path schedule representing Design-Build Team’s plan to complete performance of the Work beginning on the date of NTP 1 to Final Acceptance of the Work, submitted with the Proposal, as set forth on Exhibit 10 to the Agreement. The Preliminary Baseline Schedule shall not mean the Project Status Schedule Updates as set forth in Section 2.2.4 of the Technical Provisions, nor shall such Project Status Schedule Updates constitute revisions or amendments to the Preliminary Baseline Schedule.

**Preliminary Plans** means the Design Documents which provide the preliminary design necessary for the related to construction, operations, and maintenance of the entire Project including any Utility Adjustments required by the Project.

**Presidential Disaster Declaration** means a declaration of a major disaster by the President of the United States triggering assistance from FEMA pursuant to the Disaster Relief Act of 1974 (Pub.L. No. 93-288, as amended).

**Price Proposal** means the price component of the Proposal evaluation as described ITP.

**Price Proposal Score** means the score calculated in accordance projects evaluation criteria.

**Principal Project Documents** means the Security Instruments and the Design-Build Contract.

**Project** means the Project as defined in the RFP, that is the subject of this Agreement, and which shall include the transportation facilities and all related structures, and improvements, including integration of the ITS, and communications systems used in connection with operation of such transportation facilities, to be designed and constructed pursuant to the terms of the DB Documents.

**Project Baseline Schedule** shall have the meaning set forth in Section 2.2 of the Technical Provisions.

**Project Extension** means a linear addition to the original Project by Design-Build Team, including any at either terminus of the original Project and any linear improvement that interconnects with the original Project.

**Project Information Coordinator** means the person designated by Design-Build Team to manage Design-Build Team's public information activities as more particularly described in Section 3.2.2 of the Technical Provisions.

**Project Manager** means the individual designated by Design-Build Team and approved in writing by GDOT in the position to take full responsibility for the prosecution of the Work and will act as a single point of contact on all matters on behalf of Design-Build Team.

**Project Phase** shall have the meaning set forth in Section 2.1.9 of the Technical Provisions.

**Project Schedule** shall have the meaning set forth in Section 2.2 of the Technical Provisions.

**Project Specific Locations** means any additional temporary property interests or rights, other than ROW or Additional Properties, which are not contiguous to the Property, that Design-Build Team may require for performance of the Work, including for temporary activities in connection with the Construction Work, such as construction work sites, temporary work areas, staging areas, storage areas, and earthwork material borrow sites.

**Project Status Schedule Update** means the logic-based critical path schedule submitted monthly containing progress status and enabling comparison to the Project Baseline Schedule.

**Property** has the meaning set forth in Article 2.2.1 of the Agreement and shall include only such property as identified in the Environmental Document Approval.

**Proposal** has the meaning set forth in Recital F of the Agreement.

**Proposal Bond** means the security that Proposers submit to GDOT with their Proposals

**Proposal Revisions** has the meaning set forth in Section 5.4 of the ITP.

**Proposal Due Date** means the deadline for submission of the Proposal to GDOT as defined in the ITP Section 1.4.

**Proposed Right of Way or Proposed ROW** means any real property (which term is inclusive of all estates and interests in real property), improvements and fixtures within the lines

established in and designated as “Proposed ROW” within Exhibit 4 to the Agreement for which GDOT is obligated to provide access to Design-Build Team and/or acquire a leasehold estate or other similar property interest or rights pursuant to Article 2.2.1.1(b) of the Agreement. The term specifically includes all air space, surface rights and subsurface rights within the limits of the Proposed Right of Way and specifically excludes any Additional Properties. All portions of the Proposed Right of Way, as and to the extent of any property interests in same acquired by GDOT, shall thereafter and without further amendment to Exhibit 4 be deemed Existing Right of Way.

**Proposer**” or **Proposers**” has the meaning set forth in Section 1.1 in the ITP.

**Proprietary Intellectual Property** means Intellectual Property created, used, applied or reduced to practice in connection with the Project or the Work that derives commercial value from its protection as a trade secret under applicable Law or from its protection under patent law.

**Protection in Place** means any action taken to avoid damaging a Utility which does not involve removing or relocating that Utility, including staking the location of a Utility, exposing the Utility, avoidance of a Utility’s location by construction equipment, installing steel plating or concrete slabs, encasement in concrete, temporarily de-energizing power lines, and installing physical barriers. The term includes both temporary measures and permanent installations meeting the foregoing definition.

**Provided Approvals** means the Governmental Approvals for the Project obtained or to be obtained by GDOT, as specifically listed in Section 4.2 of the Technical Provisions (including any such approvals as may be required from GDOT independent of GDOT’s Project administration pursuant to Article 6.2 of the Agreement).

**Public Information and Communications Plan (PICP)** has the meaning set forth in Section 3.2 of the Technical Provisions.

**Punch List** means an itemized list of Construction Work that remains to be completed following Substantial Completion but as a condition to Final Acceptance, provided that the nature of any such incomplete Work, and the correction and completion of same, will have no material or adverse effect on the normal and safe use and operation of the Project.

**Punch List Period** means the time provided for Design-Build Team’s completion of Punch List Work, which shall be the time between Substantial Completion and Final Acceptance as provided in the Project Baseline Schedule.

**QA/QC Proposal Revisions** has the meaning set forth in Section 5.4 of the ITP.

**QA/QC** means quality assurance and quality control.

**Quality Management Plan (QMP)** means the set of GDOT-approved plans for quality management and control of the Project and Work, as set forth in Section 2.3 of the Technical Provisions.

**Quality Manager** means the individual retained by Design-Build Team as the Key Personnel with the authority and responsibility for ensuring establishment and maintenance of, and compliance with, the Quality Management Plan.

**Quitclaim Deed** means a quitclaim deed to be executed by a Utility Owner relinquishing its rights to maintain a Utility in a particular location, as more particularly described in Section 6.2.4.4 of the Technical Provisions.

**Railroad Right of Entry Agreement** has the meaning described in Section 14.3.1.3 of the Technical Provisions.

**Recognized Environmental Condition** has the meaning set forth in ASTM E-1527-00.

**Record Drawings** means construction drawings and related documentation revised to show as-built changes to the Project at Final Acceptance. Interim marked-in-the-field or red-lined drawings to be provided during the progress of the Work as required pursuant to the Technical Provisions shall not constitute the final Record Drawings.

**Reference Information Documents (RIDs)** means the collection of information, data, documents and other materials that GDOT has provided to Design-Build Team for general or reference information only.

**Registered Professional Engineer** means a person who is duly licensed and registered by the Georgia State Board of Registration for Professional Engineers and Land Surveyors to engage in the practice of engineering in the State of Georgia.

**Registered Professional Land Surveyor** means a person registered by the Georgia State Board of Registration for Professional Engineers and Land Surveyors to practice the profession of land, boundary, or property surveying or other similar professional practices.

**Related Transportation Facility(ies)** means all existing and future highways, streets and roads, including upgrades and expansions thereof, that is/are or will be adjacent to, connecting with or crossing under or over the Project, as specifically identified in the Technical Provisions.

**Release of Hazardous Materials** means any spill, leak, emission, release, discharge, injection, escape, leaching, dumping or disposal of Hazardous Materials into the soil, air, water, groundwater or environment, including any exacerbation of an existing release or condition of Hazardous Materials contamination.

**Release for Construction** or **RFC** means the written authorization by GDOT to proceed with any designated phase of the Construction Work based on the approved Final Plans.

**Relief Event** means any of the following events, subject to any limitations, claims submission requirements and other conditions set forth in the Agreement, provided that no relief will be available to the extent that (i) the events are within Design-Build Team's control, or are due to any wrongful act, wrongful omission, negligence, recklessness, willful misconduct, breach of contract or Law or violation of a Governmental Approval of any of the Design-Build Team-Related Entities; (ii) the events (or the effects of such events) could have been avoided by the exercise of reasonable caution, due diligence, or other reasonable efforts by Design-Build Team:

- (a) Force Majeure Event;
- (b) Latent defects in Existing Improvements;

- (c) Change in Law;
- (d) Discriminatory Action;
- (e) GDOT's failure to perform or observe any of the covenants or obligations of GDOT under the Agreement or other DB Documents;
- (f) GDOT Change;
- (g) GDOT -Caused Delay;
- (h) Performance of work in or directly adjacent to the Construction Maintenance Limits or Operations and Maintenance Limits, as well as any work by Separate Contractors within the ROW, carried out by or on behalf of GDOT or a Governmental Entity, excluding any Utility Adjustment Work by a Utility Owner, that directly disrupts Design-Build Team's onsite Work, or other documented delays to the Critical Path of the Work directly caused a Separate Contractor working on behalf of GDOT or a Governmental Entity;
- (i) Discovery at, near or on the Existing Right of Way or Property of (a) any Pre-existing Hazardous Materials or Hazardous Materials not otherwise constituting a Design-Build Team Release of Hazardous Materials, provided that where such condition was identified in the existing Phase 1 Hazardous Materials Investigation included in the RIDs, Design-Build Team shall account for same in the Project Schedule and impacts shall be limited to such conditions not identified therein (whether in type or quantity), or (b) any archeological, paleontological or cultural resources not known to Design-Build Team prior to the Proposal Due Date;
- (j) Discovery of (i) subsurface or latent physical conditions at the actual boring holes identified in the geotechnical reports included in the Reference Information Documents that differ materially from the subsurface conditions indicated in such geotechnical reports at such boring holes, excluding any such conditions known to Design-Build Team prior to the Proposal Due Date, or (ii) physical conditions within the Existing Right of Way or Property of an unusual nature, differing materially from those ordinarily encountered in the area and generally recognized as inherent in the type of work provided for in the Agreement, excluding any such conditions known to Design-Build Team prior to the Proposal Due Date or that would become known to Design-Build Team by undertaking reasonable investigation prior to the Proposal Due Date (for avoidance of doubt, conditions away from the actual boring holes that differ from conditions extrapolated from such boring data and that are not within clause (ii) above are not a Relief Event);
- (k) Discovery at, near or on the Existing Right of Way or Property of any Threatened or Endangered Species (regardless of whether the species is listed as threatened or endangered as of the Proposal Due Date), excluding any such presence of species known to Design-Build Team prior to the Proposal Due Date or that would become known to Design-Build Team by undertaking reasonable investigation prior to the Proposal Due Date;
- (l) Any spill of Hazardous Material by a third party who is not acting in the capacity of a Design-Build Team-Related Entity which (i) occurs after the Proposal Due Date, (ii) is required to be reported to a Governmental Entity and (iii) renders use of the roadway or construction area unsafe or potentially unsafe absent assessment, containment and/or remediation;

(m) Issuance of a temporary restraining order or other form of injunction by a court that prohibits prosecution of any material portion of the Work;

(n) Suspension, termination or interruption of an Approval of Environmental Documents, except to the extent that such suspension, termination or interruption results from failure by any Design-Build Team-Related Entity to locate or design the Project or carry out the work in accordance with the Approval of Environmental Documents or other Governmental Approval (which failure may include (i) modification by or on behalf of Design-Build Team of the design concept included in the Environmental Documents approval, (ii) means or methods used by any Design-Build Team-Related Entity for carrying out the Work, or (iii) decision or action by or on behalf of Design-Build Team to use or acquire Additional Property);

(o) Any change in the design concept of the Project or any portion thereof resulting from judicial or administrative action taken with respect to a legal challenge to any Approval of Environmental Documents as compared to the design concept indicated in the alternative that was the subject of the Approval of Environmental Documents, except to the extent the change in design concept had already been incorporated into Design-Build Team's design schematics assumed in connection with the DB Contract Sum;

(p) Subject to clause (t) of this definition, failure to obtain, or unreasonable and unjustified delay in obtaining or otherwise maintaining once issued, a Governmental Approval from any Governmental Entity, except to the extent that such failure or delay results from failure by any Design-Build Team-Related Entity to locate or design the Project or carry out the work in accordance with the Approval of Environmental Documents or other Governmental Approval (which failure may include (i) modification by or on behalf of Design-Build Team of the design concept included in the Approval of Environmental Documents, (ii) means or methods used by any Design-Build Team-Related Entity for carrying out the Work, or (iii) decision or action by or on behalf of Design-Build Team to use or acquire Additional Property);

(q) GDOT's (i) lack of good and sufficient title to any parcel in the Existing Right of Way or the Property, to the extent it interferes with or adversely affects performance of Work, (ii) inability or failure to obtain an interest (including by easement or other right of access) to real property not identified in the Proposed Right of Way and required for construction of the Project as demonstrated by Design-Build Team, exclusive of any Additional Properties, Project Specific Locations, or parcels that are solely for the convenience of Design-Build Team, to the extent it interferes with or adversely affects performance of Work, or (iii) the existence at any time following issuance of NTP 3 of any title reservation, condition, easement or encumbrance on any parcel in the Existing Right of Way or Property owned by GDOT, of record or not of record, to the extent it interferes with or adversely affects performance of Work, except any title reservations, conditions, easements or encumbrances concerning Utilities or otherwise caused, permitted or suffered by a Design-Build Team-Related Entity;

(r) Unreasonable and unjustified delay by a Utility Owner with whom Design-Build Team has been unable to enter into a Utility Agreement in connection with a Utility Adjustment, or failure or delay of any Utility in obtaining any required easement, right of way or other property interest as may be required, provided that all of the "conditions to assistance" described in Article 7.5.7.2 of the Agreement have been satisfied;

(s) Failure to obtain, or unreasonable and unjustified delay in obtaining, an approval from GDOT with respect to a Permitted Design Exception, except to the extent that such failure

or delay in obtaining the GDOT approval results from failure by any Design-Build Team-Related Entity to carry out the Work in accordance with the DB Documents;

(t) Failure to obtain, or unreasonable and unjustified delay in obtaining, a Governmental Approval required for a re-evaluation of an Approval of Environmental Documents due to an approved ATC; provided that Design-Build Team shall only be entitled to relief for such failure or delay after expiration of the applicable GDOT Re-evaluation Period; or

(u) Material delays as a result of any modification to the Approval of Environmental Documents as set forth pursuant to subpart (a) of the definition of Approval of Environmental Documents as provided in Exhibit 1 hereto, as a result of the Environmental Documents, and all approved supplements and re-evaluations pertaining to the Project as of the Effective Date as provided in subpart (b) of such definition, provided that any such modifications are not the result of an ATC, Additional Properties, or attributable to Design-Build Team's design.

**Relief Event Determination** has the meaning set forth in Article 13.1 of the Agreement.

**Relief Event Notice** means the written notice required to be provided by Design-Build Team under Article 13.1.1 of the Agreement.

**Replacement Housing Calculation** means the opportunity to provide the displaced person with the financial assistance to purchase or rent and occupy a comparable replacement dwelling without involuntarily incurring additional financial means due to the displacement.

**Replacement Utility Property Interest** means any permanent right, title or interest in real property outside of the Property (e.g., a fee or an easement) that is acquired for a Utility being reinstalled in a new location as a part of the Utility Adjustment Work. The term specifically excludes any statutory right of occupancy or permit granted by a Governmental Entity for occupancy of its real property by a Utility.

**Request for Change Proposal** means a written notice issued by GDOT to Design-Build Team setting forth a proposed GDOT Change and requesting Design-Build Team's assessment of cost, and schedule impacts thereof, as set forth in Article 14.1.2 of the Agreement.

**Request for Information** means a written request by the DB Team to GDOT requesting clarification of the DB Document requirements.

**Request for Proposals (RFP)** means all documents, whether attached or incorporated by reference, utilized for soliciting proposals. The RFP is the only solicitation utilized by the Department in the One Phase Low Bid selection method. The RFP is the second phase utilized by the Department for the Two Phase Low Bid and Best Value selection methods.

**Request for Qualifications (RFQ)** means all documents, whether attached or incorporated by reference, utilized by the Department for soliciting interested Proposers to apply for prequalification including instruction for submitting a Statement of Qualification (SOQ), evaluation criteria and minimum qualifications required of a Design-Build Team. The RFQ is the first phase of a two phase process utilized by the Department for the Two Phase Low Bid and Best Value selection methods.

**Reserved** means a section of the DB Documents (Design-Build Agreement, Technical Provisions, or Programmatic Provisions) that is not being utilized for this contract. Sections

marked Reserved have no requirements and references to sections marked Reserved shall mean that there are no additional requirements beyond the reference point.

**Right of Way** or **ROW** means the Existing Right of Way and Proposed Right of Way.

**Right of Way Acquisition Plan** or **ROW Acquisition Plan** has the meaning set forth in Section 5 of Volume 3.

**Rules** have the meaning set forth in **Recital C** of the Agreement.

**Safety Compliance** means any and all improvements, repair, reconstruction, rehabilitation, restoration, renewal, replacement and changes in configuration or procedures respecting the Project to correct a specific safety condition or risk of the Project that GDOT has reasonably determined to exist by investigation or analysis and that is in violation of the requirements of the DB Documents.

**Safety Compliance Order** means a written order or directive from GDOT to Design-Build Team to implement Safety Compliance measures.

**Safety Standards** means those provisions of the Technical Provisions or Technical Documents that GDOT, FHWA, OSHA, or AASHTO considers to be important measures to protect public safety or worker safety. As a matter of clarification, provisions of Technical Provisions or Technical Documents primarily directed at durability of materials or equipment, where the durability is primarily a matter of life cycle cost rather than protecting public or worker safety, are not Safety Standards.

**Schedule of Values** means a detailed line item valuations for all Elements of the Work which lists all Payment Activities in a format that provides a sufficiently breakdown of the Pay Items. Include the Schedule of Values a rational basis for partial payments of the Lump Sum bid based on the completed portion of the item and definitive activities. Payment will not be made for individual construction activities. No payments will be made until the Schedule of Values is accepted. Mobilization, and Payment and Performance Bonds may be included as separate line items in the Schedule of Values. Any amount for Mobilization set forth in the Schedule of Values shall not exceed 2.5% of the total construction cost.

**Schematic Plan of Project** means Design-Build Team's schematic plan specific to the preliminary roadway plans showing the concept and technical solutions in accordance with the provisions of the Instructions to Proposers, Exhibit C.

**Security Document** means any mortgage, deed of trust, pledge, lien, indenture, trust agreement, hypothecation, assignment, collateral assignment, financing statement under the Uniform Commercial Code of any jurisdiction, security instrument or other charge or encumbrance of any kind, including any lease in the nature of a security instrument, given to any Person as security for Design-Build Team Debt or Design-Build Team's obligations pertaining to Design-Build Team Debt and encumbering the Design-Build Team's Interest.

**Selection Recommendation Committee** means the group of individuals authorized by GDOT (if any) to recommend the Best Value Proposer to the Steering Committee.

**Separate Contractor(s)** means each and any separate contractor or vendor engaged by GDOT or any other governmental authority or agency of the State to perform, provide, and/or

supply work, services, labor or materials for the Project that is expressly excluded from Design-Build Team's Work pursuant to the DB Documents.

**Service Line** means a Utility line, the function of which is to directly connect the improvements on an individual property to another Utility line located off such property, which other Utility line connects more than one such individual line to a larger system. However, unless otherwise noted in the Technical Provisions, the term "Service Line" excludes any line that supplies an active feed from a Utility Owner's facilities to supply, activate or energize GDOT's or a Governmental Entity's Highway Service System. Such line, including its actual connection to the Utility facility, shall instead be considered to be part of the applicable Highway Service System.

**Site** means the Property and any temporary rights or interests that Design-Build Team may acquire in connection with the Project or the Utility Adjustments included in the Construction Work, including Project Specific Locations.

**Source Code** and **Source Code Documentation** mean software written in programming languages, such as C++ and Fortran, including all comments and procedural code, such as job control language statements, in a form intelligible to trained programmers and capable of being translated into object or machine readable code for operation on computer equipment through assembly or compiling, and accompanied by documentation, including flow charts, schematics, statements of principles of operations, architectural standards, and commentary, explanations and instructions for compiling, describing the data flows, data structures, and control logic of the software in sufficient detail to enable a trained programmer through study of such documentation to maintain and/or modify the software without undue experimentation. Source Code and Source Code Documentation also include all modifications, additions, substitutions, updates, upgrades and corrections made to the foregoing items.

**SRTA** means the State Road and Tollway Authority.

**SRTA Recoverable Costs** means:

(a) The costs of any assistance, action, activity or Work undertaken by GDOT which Design-Build Team is liable for or is to reimburse under the terms of the DB Documents, including the charges of third party contractors, and reasonably allocated wages, salaries, compensation and overhead of GDOT staff and employees, performing such action, activity or Work (exclusive or ordinary and customary administration and review activities by GDOT employees or consultants (except for such consultant fees and expenses as expressly reserved in the Agreement); plus

(b) Third-party costs GDOT incurs to publicly procure any such third party contractors; plus

(c) Reasonable fees and costs of attorneys (including the reasonably allocable fees and costs of the Georgia Attorney General's Office), financial advisors, engineers, architects, insurance brokers and advisors, investigators, traffic and revenue consultants, risk management consultants, other consultants, and expert witnesses, as well as court costs and other litigation costs, in connection with any such assistance, action, activity or Work, including in connection with defending claims by and resolving disputes with third party contractors; plus

(d) Any expense or cost for which GDOT is to be reimbursed by Design-Build Team pursuant to the express terms of the Agreement; including without limitation Articles 2.2.3.2, 6.2.5, 7.5.7.2, 16.1.2.4, 16.6.7, 17.3.3.2, 17.3.8.3, 17.3.11.2, and 22.3.3; plus

(e) Interest on all the foregoing sums at the Default Interest Rate from the date due under the applicable terms of the DB Documents and continuing until paid.

**Staged Design Submittals** shall have the meaning set forth in **Section 23.2.1** in the Technical Provisions.

**Standard Utility Agreement (SUA)** means an Agreement providing for relocation or adjustment work to be performed by the Utility and/or its consultant or contractor and modification of easement limited provisions, if applicable. To the extent practical, reimbursement by the Department will be made based upon the Department's specifications, agreements and forms or consultant and construction contract work. The payment method may be actual cost, unit price, or lump sum as appropriate.

**State** means the State of Georgia.

**State and Local Government Series (SLGS) Index** means the State and Local Government Series (SLGS) Index published and maintained by the United States Department of the Treasury.

**State Highway** means a highway designated as part of the state highway system under Code 32-4-21.

**Statement of Qualifications** or **SOQ** has the meaning set forth in **Section 1.1** of the ITP.

**Stipulated Fee** means the amount GDOT will pay unsuccessful responsive Proposers for their Work Product.

**Subcontractor** means any other Person, including any Supplier with whom any Contractor has further subcontracted, purchased or procured any part of the Work, at all tiers.

**Submittal** means any document, work product or other written or electronic end product or item required under the DB Documents to be delivered or submitted to GDOT, as applicable.

**Substantial Completion** means satisfaction of the criteria for completion of Construction Work as set forth in **Article 7.7** of the Agreement, as and when confirmed by GDOT's issuance of a certificate in accordance with the procedures and within the time frame established in **Article 7.7.1** of the Agreement.

**Substantial Completion Date** means the date upon which Design-Build Team has satisfied all conditions of and for Substantial Completion.

**Substantial Completion Deadline** means the deadline and required date for Substantial Completion of the Project as set forth in the Milestone Schedule, as such deadline

may be extended for Relief Events from time to time pursuant to the Agreement, time being of the essence.

**Substitute** has the meaning set forth in the Direct Agreement.

**Subsurface Utility Engineering (SUE)** means an engineering process for accurately identifying the quality of subsurface utility information needed for highway plans, and for acquiring and managing that level of information during the development of a highway project, as more particularly described at the FHWA website <http://www.fhwa.dot.gov/programadmin/sueindex.cfm>.

**Supplemental Agreement** means a mutual agreement between GDOT and Design-Build Team for changes in the Work under Article 14 of the Agreement, including on account of any Relief Event Determination and/or Compensation Event Determination as set forth under Article 14.4 of the Agreement.

**Supplier** means any Person not performing work at or on the Site that supplies machinery, equipment, materials, hardware, software, systems or any other appurtenance to the Project to Design-Build Team or to any Contractor in connection with the performance of the Work. Persons who merely transport, pick up, deliver or carry materials, personnel, parts or equipment or any other similar items or persons to or from the Site shall not be deemed to be performing Work at the Site.

**Surety** means each properly licensed surety company, insurance company or other Person approved by GDOT, which has issued any of the P&P Bonds.

**Taxes** means federal, State, local or foreign income, margin, gross receipts, sales, use, excise, transfer, consumer, license, payroll, employment, severance, stamp, business, occupation, premium, windfall profits, environmental (including taxes under Section 59A of the Internal Revenue Code of 1986, as amended), customs, permit, capital stock, franchise, profits, withholding, social security (or similar), unemployment, disability, real property, personal property, registration, value added, alternative or add-on minimum, estimated or other taxes, levies, imposts, duties, fees or charges imposed, levied, collected, withheld or assessed at any time, whether direct or indirect, relating to, or incurred in connection with, the Project, the performance of the Work, or act, business, status or transaction of Design-Build Team, including any interest, penalty or addition thereto, and including utility rates or rents, in all cases whether disputed or undisputed.

**Technical Documents** means all the standards, criteria, requirements, conditions, procedures, specifications and other provisions set forth in the manuals and documents identified in the DB Documents, as such provisions may (a) have been generally revised from time to time up the RFP advertisement date, or (b) be changed, added to or replaced pursuant to the Agreement.

**Technical Provisions** means Volume 2 and Volume 3; as such documents may (a) have been generally revised from time to time up to ninety (90) days prior to the Proposal Due Date, or (b) be changed, added to or replaced pursuant to the Agreement.

**Technical Proposal** means the technical component of the Proposal evaluation as described ITP.

**Technology Enhancements** means modifications, additions, refinements, substitutions, revisions, replacements and upgrades made to or in place of electronic toll collection and enforcement systems deployed on or for the Project or to any other computer systems or other technology used for the operation of the Project, or to any related documentation, that accomplish incidental, performance, structural, or functional improvements. The term specifically includes modifications, updates, revisions, replacements and upgrades made to or in place of software or any related documentation that correct errors or safety hazards or support new models of computer hardware with which the software is designed to operate. Technology Enhancements also include such new models of computer hardware.

**Term** has the meaning set forth in Article 3.1.1 of the Agreement.

**Termination by Court Ruling** has the meaning set forth in Article 19.11 of the Agreement.

**Termination Compensation** means each of the measure of compensation owing from GDOT to Design-Build Team upon termination of the Agreement prior to the stated expiration of the Term, pursuant to Article 19, and as set forth in Exhibit 20 to the Agreement.

**Termination Date** means (a) the date of expiration of the Term or (b) if applicable, the Early Termination Date.

**Termination for Convenience** has the meaning set forth in Article 19.1.1 of the Agreement.

**Third Party Claims** means, subject to Article 16.5.4 of the Agreement, any and all claims, disputes, disagreements, causes of action, demands, suits, actions, investigations, or legal or administrative proceedings asserted, initiated or brought by a Person that is not an Indemnified Party or Design-Build Team with respect to any Third Party Loss.

**Third Party Loss** means, subject to Article 16.5.4 of the Agreement, any actual or alleged Loss sustained or incurred by a Person that is not an Indemnified Party or Design-Build Team.

**Threatened or Endangered Species** means any species listed by the USFWS as threatened or endangered pursuant to the Endangered Species Act, as amended, 16 U.S.C. §§ 1531, *et seq.*

**Tolling Integration Deadline** means each certain Milestone Schedule Deadline, as set forth in the Milestone Schedule, as may be adjusted by the Project Baseline Schedule, for completion of such portions of the Work as necessary and required to allow the Tolling Integration Contractor to commence and complete the Tolling Integration Work.

**Traffic Management Center** is a center for the management and distribution of information to Users on a regional or statewide basis.

**Transferee** means any party as defined pursuant to Article 21.2.2.1 of the Agreement, solely for purposes of Articles 21.2 through 21.5 of the Agreement.

**Transponder** means the in-vehicle device that permits Users to communicate, identify, and conduct an electronic toll transaction with Design-Build Team's ETCS.

**Transportation Management Plan** means Design-Build Team's plan for transportation management throughout the Term, as more particularly described in Article 9.2.2 the Agreement and Section 18.2.1 of the Technical Provisions.

**Travel Lane** means the portion of roadway for the movement of vehicles, exclusive of shoulders.

**Uniform Act** means the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act, P.L. 91-646, as amended.

**Uninsurable Risk** means a risk, or any component of a risk, against which Design-Build Team or a Contractor is required to insure pursuant to the Agreement and for which, at any time after the Effective Date, either:

(a) the insurance coverage required under the Agreement is not available in relation to that risk from insurers that meet the qualifications set forth in Article 16.1.2.1 of the Agreement; or

(b) the terms and conditions for insuring that risk are such that the risk is not generally being insured against in the insurance market under commercially reasonable terms from insurers that meet the qualifications set forth in Article 16.1.2.1 of the Agreement.

**Utility** or **utility** means any of the following:

(a) a public, private, cooperative, municipal and/or government line, facility or system used for the carriage, transmission and/or distribution of cable television, electric power, telephone, telegraph, water, gas, oil, petroleum products, steam, chemicals, hydrocarbons, telecommunications, sewage, and similar commodities, that directly or indirectly serves the public;

(b) a line, facility or system which (i) carries or transmits a commodity referenced in clause (a) above but does not directly or indirectly serve the public, and (ii) is designated in Volume 1 or Volume 2 to be treated, for purposes of the DB Documents only, in the same manner as a line, facility or system that qualifies as a Utility under clause (a) above; and

(c) a radio tower or transmission tower (including cellular) that directly or indirectly serve the public.

Notwithstanding the foregoing, the term "Utility" or "utility" excludes:

(a) all storm water lines, facilities, and systems that are part of the drainage system for the Property or connect to that system; and

(b) GDOT's or a Governmental Entity's Highway Service Systems.

The necessary appurtenances to each Utility facility shall be considered part of such Utility. Any Service Line connecting directly to a Utility shall be considered an appurtenance to that Utility, regardless of the ownership of such Service Line.

**Utility Accommodation Manual (UAM)** means the Utility Accommodation Manual issued by GDOT, at Ga. Comp. R. & Regs. r. 672-11-.01 through -.04, as the same may be amended, supplemented or replaced by GDOT from time to time.

**Utility Adjustment Field Modification** means any horizontal or vertical design change to a Utility Adjustment required by Design-Build Team or proposed by a Utility Owner due either to roadway design or to conditions not accurately reflected in the corresponding Utility Work Plan for which the review and comment/approval process has been completed, that alters the design included in the approved Utility Work Plan. An example would be shifting the alignment of an 8" water line to miss a roadway drainage structure. A minor change (e.g., an additional water valve, an added Utility marker at ROW line, a change in vertical bend, etc.) will not be considered a Utility Adjustment Field Modification, but shall be shown in the Record Drawings.

**Utility Adjustment** means each relocation (temporary or permanent), abandonment, Protection in Place, removal (of previously abandoned Utilities as well as of newly abandoned Utilities), replacement, reinstallation, and/or modification of existing Utilities necessary to accommodate construction, operation, maintenance and/or use of the Project; provided, however, that the term "Utility Adjustment" shall not refer to any of the work associated with facilities owned by any railroad. For any Utility crossing the Property, the Utility Adjustment Work for each crossing of the Property by that Utility shall be considered a separate Utility Adjustment. For any Utility installed longitudinally within the Property, the Utility Adjustment Work for each continuous segment of that Utility located within the Property shall be considered a separate Utility Adjustment.

**Utility Adjustment Work** means all efforts and costs necessary to accomplish the required Utility Adjustments, including all coordination, design, design review, permitting, construction, inspection, maintenance of records, relinquishment of Existing Utility Property Interests, preparation of Utility Joint Use Acknowledgements, and acquisition of Replacement Utility Property Interests, whether provided by Design-Build Team or by the Utility Owners. The term also includes any reimbursement of Utility Owners which is Design-Build Team's responsibility pursuant to Article 7.5 of the Agreement. Any Utility Adjustment Work furnished or performed by Design-Build Team is part of the Work; any Utility Adjustment Work furnished or performed by a Utility Owner is not part of the Work.

**Utility Enhancement** means a Betterment or a Utility Owner Project, as referenced in Section 6.1.3.2 of the Technical Provisions.

**Utility Joint Use Acknowledgment** or **Utility Joint Use Agreement** means an agreement between GDOT and a Utility Owner that establishes the rights and obligations of GDOT and the Utility Owner with respect to occupancy of the Property by such Utility Owner's Utility.

**Utility Manager (UM)** means the senior staff person designated by Design-Build Team to be responsible for coordination and oversight of Utility Adjustment operations during the planning, design, and construction phases of the Work, as more particularly described in Section 6.2.3 of the Technical Provisions.

**Utility Owner** means the owner or operator of any Utility (including both privately held and publicly held entities, cooperative utilities, and municipalities and other governmental agencies).

**Utility Owner Project** means the design and construction by or at the direction of a Utility Owner (or by Design-Build Team) of a new Utility other than (a) as part of a Utility Adjustment or (b) to provide service to the Project. Betterments are not Utility Owner Projects. Utility Owner Projects are entirely the financial obligation of the Utility Owner.

**Utility Tracking Report** means the report regarding Utilities likely to be impacted by the Project, which Design-Build Team shall maintain on a current basis, as more particularly described in Section 6.5.1 of the Technical Provisions.

**Utility Work Plan** means the collection of agreements, plans and other information and materials which Design-Build Team is required to submit to GDOT in connection with each Utility Adjustment, as more particularly described in Section 6.3.4.5 of the Technical Provisions. Depending on the context, the term also refers to Supplemental Utility Work Plans and Utility Work Plan Retention Requests (both also described in Section 6.3.4.5 of the Technical Provisions).

**Utility Work Plan Checklist** means a checklist listing the required components of a Utility Work Plan, as referenced in Section 6.3.4.5 of the Technical Provisions.

**Utility Work Plan Retention Request** means the collection of plans and other information and materials which Design-Build Team is required to submit to GDOT in connection with each Utility proposed to remain at its original location within the Existing Right of Way or Property, as more particularly described in Section 6.3.4.5 of the Technical Provisions; a single Utility Work Plan Retention Request may address more than one such Utility.

**Volume 1** means the Design-Build Agreement or the Agreement.

**Volume 2** means the project-specific technical provisions entitled “Technical Provisions for Design-Build Agreement - Volume 2”.

**Volume 3** means GDOT’s technical provisions entitled “Programmatic Technical Provisions for Design-Build Agreement - Volume 3”.

**Warning Notice** means a written notice that GDOT delivers to Design-Build Team pursuant to Article 17.2 of the Agreement.

**Work** means all of the work required to be furnished and provided by Design-Build Team under the DB Documents for the Project, including without limitation, all administrative, design, engineering, construction, Utility Adjustment, utility accommodation, support services, ECTS and software integration, and coordination, except for those efforts which such DB Documents expressly specify will be performed by Persons other than Design-Build Team-Related Entities, all as required and as may reasonably inferred for full and proper completion of the Project in accordance with this Agreement and the DB Documents.

**Work Breakdown Structure** means a deliverable-oriented hierarchical structure that breaks the Work into elements that have distinct identification and that contain specific scope characteristics. Each descending WBS level represents an increasingly detailed delineation of elements of the total Project scope. The WBS will contain elements of Design Work and Construction Work. There shall be clearly identifiable linkage between the WBS, the elements

of the Work, and Project Schedule. The WBS numbering convention shall be compatible with Project Baseline Schedule coding and may be compatible with document control coding.

**Work Code** means a code assigned to a contract line item. Example: 400 is asphalt paving, 653 is highway traffic striping. The Work Codes were established and predefined by a GDOT Committee comprised of the Office of EEO, Construction, Bidding Administration, and Prequalification, in 2012. Not every item has a work code, only those items that are predominantly used on Highway construction projects. Contractors and Subcontractors in the GDOT directories are assigned work codes based upon their work description. Work codes are the most refined data available.

**Work Product** means any design files, concepts, ideas, technology, techniques, methods, processes, drawings, reports, plans and specifications used in the development of the bid and technical proposal including any ATCs being acquired by the GDOT.

**EXHIBIT 2**

**DESIGN-BUILD TEAM'S PROPOSAL COMMITMENTS AND KEY PERSONNEL**

Proposal Commitments [Technical Proposal, approved and included ATCs, Proposal Schedule, cost-loaded Proposal Schedule, Design-Build Schedule of Values, and Key Personnel]



in response to the  
*Georgia Department of Transportation*  
**Request for Proposals**  
to design and construct  
**I-85 Widening Project**  
**P.I. # 110610**  
**Gwinnett and Barrow Counties**



Submitted by:



in  
association  
with:



**August 25, 2017**





## VOLUME 2a - TECHNICAL PROPOSAL

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# **CONSTRUCTION PHASING AND EARLY OPENING**





## C.1.1 CONSTRUCTION PHASING & EARLY OPENING OF PORTIONS OF THE WORK

### C.1.1.1 CONSTRUCTION PHASING & EARLY OPENING SEGMENTS

The CWM Team developed a Construction Phasing Plan which resulted in the ability to open portions of the work to the traveling public significantly earlier than the Substantial Completion Deadline established in EXHIBIT 9 of the Design-Build Agreement. Early Opening Segments (EO Segment) are graphically defined and illustrated in a schematic drawing that can be found in APPENDIX A of the Volume 2 Supplemental Information binder included with this submittal. The following table further defines the CWM Team's EO Segments and proposed Interim Completion Deadlines for each EO Segment. FORM M is included at the end of this TAB to confirm the CWM Team's commitment to the Interim Completion Deadlines shown in the table.

| EARLY OPENING SEGMENTS & INTERIM COMPLETION DEADLINES |  |                             |
|---|--|-----------------------------|
| EO SEGMENT #  | EO SEGMENT BOUNDARIES                                    | INTERIM COMPLETION DEADLINE |
| #1  | 50' North of Hamilton Mill Road Bridge to Station 518+00 | 698 Days after NTP 1        |
| #2  | Station 518+00 to Station 725+60                         | 723 Days after NTP 1        |
| #3  | Station 725+60 to Station 831+20                         | 917 Days after NTP 1        |
| #4  | Station 831+20 to Station 964+50                         | 944 Days after NTP 1        |

In addition to the Interim Completion Deadlines committed to above, the CWM Team also proposes to revise the **Substantial Completion Deadline to 944 Days after the date GDOT issues NTP1**. The Proposal Schedule reflects this 30-day reduction and the Interim Completion Deadlines above are based upon this accelerated project delivery.

While the Interim Completion Deadlines the CWM Team is committing are aggressive, the Construction Phasing Plan developed by the Team addresses the challenges associated with meeting these deadlines. The construction phasing plan relies on the vast resources that are available to this team and the management abilities and experience of key personnel. The plan involves working in multiple areas concurrently, but within the framework of the contract traffic control requirements. Long term shoulder closures will be implemented provided there is an opposing shoulder with a minimum width of eight feet (8'). Long term shoulder closures will be limited to one mile in length and for a maximum closure period of 180 days. There will be a minimum of one mile between each closure.

In addition to the Early Opening Schematic, construction phasing schematics are included in APPENDIX A. These drawings graphically depict the following outline of the CWM Team's Construction Phasing Plan. This outline, and the referenced drawings, are provided as an overview of the construction phasing plan developed to deliver this project on-time and with the minimum amount of impact to the traveling public. In fact, our phasing plan completes sound barrier and outside shoulder construction prior to opening EO Segments so motorists are not impacted by lane additional closures for this work. Additional insight and information regarding the construction phasing is provided in the Construction Staging and Traffic Management Plan tab that follows. Please note that it is understood that the early opening of Begin Project to Hamilton Mill will not be considered in the scoring of proposals; however, our construction phasing plan designates this portion of the work as EO Segment #0.

#### **CONSTRUCTION PHASE 1**

1. Correct Substandard Cross Slope and Vertical Curves on Existing NB and SB General Purpose Lanes in EO Segments #1 and #2.

#### **CONSTRUCTION PHASE 1A**

1. Mill, Inlay and Restripe Buffer and Transition Areas from Begin Project to Hamilton Mill Road



## **CONSTRUCTION PHASE 2**

1. Correct Substandard Cross Slope and Vertical Curves on Existing NB and SB General Purpose Lanes in EO Segments #3 and #4.
2. Median Construction in EO Segments #1 and #2. Maximum of one mile inside shoulder closure increments with minimum one mile between inside shoulder closures
3. Remove and Replace Sprout Springs Road Overpass

## **CONSTRUCTION PHASE 3**

1. Median construction in EO Segments #1 and #2. Maximum of one mile inside shoulder closure increments with minimum one mile between inside shoulder closures.
2. Median construction EO Segment #3 and Mulberry River Bridge Widening and Reconstruction.
3. Remove and Replace Jesse Cronin Road Overpass

## **CONSTRUCTION PHASE 4**

1. Median Construction in EO Segments #3 and #4. Maximum of one mile inside shoulder closure increments with minimum one mile between inside shoulder closures.
2. Complete Construction of Sound Barrier EO Segments #1 and #2.
3. Final Surface and Pavement Markings EO Segment #1 and #2 (AFTER COMPLETION OF SOUND BARRIER, SHOULDER, AND GUARDRAIL CONSTRUCTION)
4. Remove and Replace Flowery Branch Road Overpass

## **CONSTRUCTION PHASE 5**

1. Median Construction in EO Segments #4. Maximum of one mile inside shoulder closure increments with minimum one mile between inside shoulder closures.
2. Final Surface and Pavement Marking EO Segment #3

## **CONSTRUCTION PHASE 6**

1. Median Construction in EO Segments #4. Maximum of one mile inside shoulder closure increments with minimum one mile between shoulder inside shoulder closures.
2. Final Surface and Pavement Markings EO Segment #3 and #4 (AFTER COMPLETION OF SOUND BARRIER, SHOULDER, AND GUARDRAIL CONSTRUCTION)

To support the construction phasing plan outlined above and facilitate early construction in certain areas outside jurisdictional and buffered areas that require permitting, the CWM Team proposes to group critical portions of project design into the following Design Packages:

- Design Package 1 – Begin Project to Hamilton Mill Rd
- Design Package 2 – Hamilton Mill Rd to SR 211
- Design Package 3 – SR 211 to Project Terminus
- Design Package 4 – Sprout Springs Road Overpass

In each Design Package, the design and permitting function will be segmented by technical discipline; roadway design, structures design, drainage design, traffic engineering, environmental, and support functions, such as survey and geotechnical. Each Design Package will be advanced with submittals prioritized by the schedule.

This approach is based on completing the first five miles including the Spout Springs and Flowery Branch Road overpasses as soon as possible for early turnover and then completion of additional segments.

The design, permitting and construction of each segment has been staged to promote the earliest possible start to construction without sacrificing safety of the workers or the traveling public. The order of construction was determined by careful analysis of the segment's scope, schedule and risk factors with division into logical segments of work with consideration to overall integration of the work to avoid conflicts, such as drainage and storm water flow between the segments. Constructability has been analyzed in each segment to maximize earth work balance to reduce the length of hauls and for proper placement of ingress and egress points for construction activities minimizing the impact to motorists, businesses, and residents in the project corridor while maintaining reasonable access to the project for material deliveries.



### C.1.1.2 PROJECT SCHEDULE

A key element of the Project Management Plan (PMP) is the Project Baseline Schedule and Construction Phasing Plan. An integral part of development of the Technical and Price Proposals was development of the Proposal Schedule to confirm the CWM Team's ability to achieve proposed Interim Completion Deadlines, the Substantial Completion Deadline, and the Final Acceptance Deadline within the financial constraints imposed by the Maximum Annual Cumulative Payment Cap Schedule. In addition to providing a tool to measure design and construction progress during the course of the project, the schedule will be maintained as a planning tool and used to communicate our project execution plan to GDOT, the CWM Team and other stakeholders.

A primary task of the CWM Team during the proposal phase was development of the project design, project management approach and traffic management approach. The Proposal Schedule contained in the APPENDIX C of the Volume 2 – Technical Proposal Supplemental Information binder demonstrates that the design, permitting and construction activities are sequenced in an efficient and coordinated manner from NTP 1 to Final Acceptance.

**C.1.1.2(a) Overall Approach to Project Scheduling:** The Proposal Schedule was developed in general conformance with Volume 3, Section 2.2. It graphically illustrates critical design and development activities and relationships which are coordinated with environmental approvals, permitting, preconstruction activities and construction. The Proposal Schedule includes activities for:

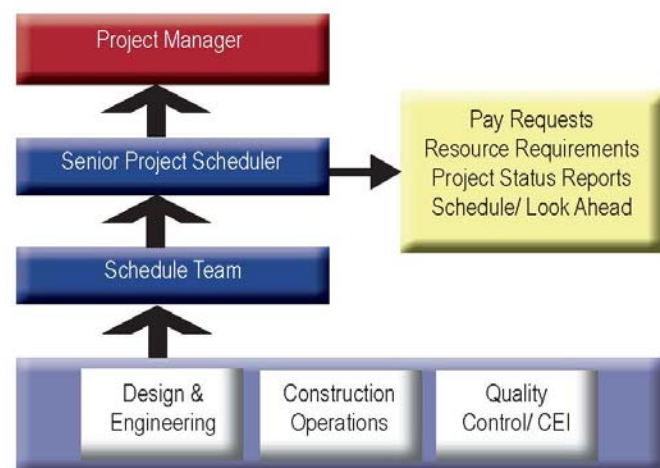
- NEPA Re-Evaluation
- Utility Coordination and Relocations
- Permitting and Environmental Approvals
- ITS Installation, Integration and Testing
- Volume 3, Attachment 23-1 Submittals
- GDOT and Agency Review and/or Approval and subsequent review and approval if required.

The schedule format, structure and logic is also consistent with the Construction Phasing and Early Opening of Portions of the Work proposed above and includes all major work activities required under the contract.

**Overall Schedule Approach:** During the proposal phase, key personnel and task managers provided input for the Proposal Schedule. This input was coordinated and used as the basis for the Proposal Schedule and Construction Phasing Plan. This group of experienced design and construction key personnel and task managers will be the core management team designated for the I-85 Widening Project. The Project will benefit from this management continuity by bringing their depth of specific project knowledge and expertise to the Project from RFQ to Project Acceptance. This collaborative approach will continue through development of the Preliminary and Project Baseline Schedules.

After the project award, the first and most critical scheduling task will be development of the Preliminary Baseline Schedule, which will be submitted within 30 days of NTP 1. During the period of NTP 1 to approval of the Project Baseline Schedule, the CWM Team will utilize the Preliminary Baseline Schedule, updated monthly, to track and manage initial activities. The Preliminary Baseline Schedule, submitted with this proposal, will be refined during this period to ensure a comprehensive and accurate schedule is submitted and accepted by the Department.

The Project Baseline Schedule ultimately becomes the primary tool for monitoring and managing the project through the use of various CPM schedule outputs throughout the design and construction phases. These schedule outputs will assist the Management Team in understanding the effect of outside influences and constraints. This data gives management the knowledge it needs to maintain a proactive approach to schedule management and for use in pre-emptive planning or to create a recovery schedule when necessary. The Project Baseline Schedule will also become a critical component of the PMP tool box and will serve as an invaluable asset in ensuring successful project delivery.



An initial step in developing the Preliminary Baseline Schedule and ultimately the Project Baseline Schedule will be to meet with the GDOT, other governmental agencies, and key stakeholders, as well as subcontractors and vendors, to identify and fully understand all key or controlling constraints. The additional information obtained from these meetings will



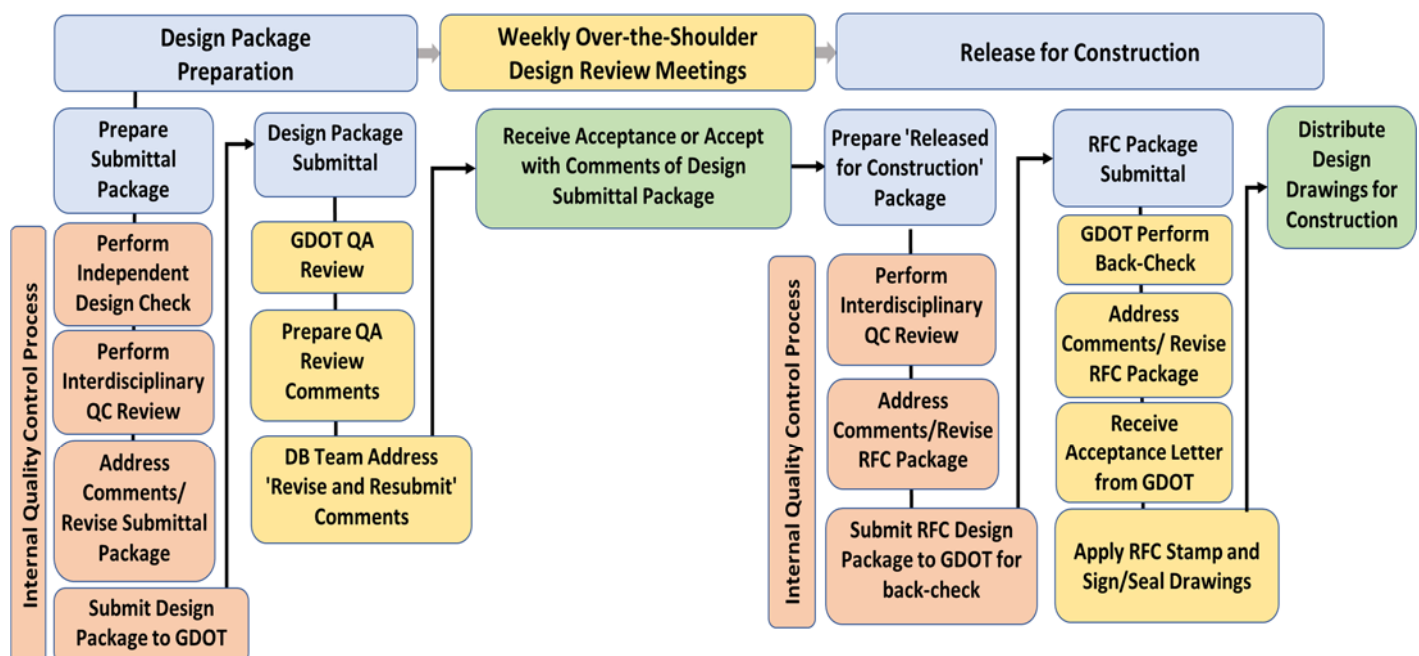
be integrated into the design and construction logic to produce a comprehensive and detailed budgeting, procurement, and project delivery plan.

The CWM Team understands the design and pre-construction tasks must be scheduled to accommodate construction durations and to take full advantage of the construction resources available to this Project. The Construction Team, led by the Lead Contractor Superintendent and the project scheduler, will further develop the construction phasing and logistical plan so that Team resources are fully integrated for maximum efficiency and optimum schedule performance. These plans will be refined in collaboration with the Design and Quality Management Teams so the Project Baseline Schedule reflects an aggressive, but realistic approach to project delivery. Scheduling of design packages will be fully integrated into the schedule and coordinated with construction needs. Likewise, quality control, environmental approvals and permitting, and utility coordination and relocation activities already in the Proposal Schedule will be expanded and refined to present a fast-tracked yet credible construction schedule. This collaborative effort by the CWM Team, will ensure a thorough understanding of the schedule and how everyone's role supports schedule performance.

As stated earlier, the CWM Team considers the Project Baseline Schedule to be a fundamental management tool and understands that schedule management is critical to a project's success. As such, the CWM Team will assign to this Project a full-time scheduler with the skills and experience necessary to create and maintain the schedule. The Project Baseline Schedule will be used for planning and monitoring the actual progress of the Work, as well as providing supporting documentation for determining payment request amounts and compliance with the Maximum Annual Cumulative Payment Cap. The schedule will be updated and reviewed during design and construction meetings to allow prompt resolution of issues so project performance remains on schedule and within budget. It will also be the source of project information for project management, GDOT, and stakeholders. Interim Deadlines and completion deadlines in the schedule will be integrated so impacts occurring in one activity are reflected throughout the schedule and realistic completion dates are reported. Monthly status reports during the term of the Design-Build Agreement will include schedule updates so that management reports are current and accurately reflect Project status. Examples of monthly CPM schedule reports that the CWM Team may utilize during the course of the Project include the following:

- Utility Coordination and Relocation Status
- Status of Work by Construction Area and Work Scope
- Comparison of Planned Progress to Actual Progress
- Design Submittal Look Ahead
- 60-Day Look Ahead on Required GDOT and Government Approvals
- Five-Week Detail Schedules
- Critical Items report/Critical Path

**Design and Construction Submittals:** The Proposal Schedule developed by the CMW Team incorporates submittals outlined by the RFP, particularly those submittals that are critical to achieving and meeting the requirements Contract Execution, NTP 1, NTP 2 and NTP 3. The CWM Team divided the Project into distinct design submittals expediting review





and optimizing the schedule. The flow chart below graphically depicts our design flow from the development of preliminary plans through “over the shoulder” reviews and ultimately to the approval of the Released for Construction Plans Packages.

Shop drawing packages will be submitted in a thorough, detailed manner after a comprehensive review by the EOR with the goal that all shop drawing submittals will be approved in one GDOT review cycle. Appropriate review times have been included in the Proposal Schedule for all submittals in accordance with the RFP requirements.

Included in APPENDIX C of the Volume 2 – Supplemental Information binder is a Preliminary Submittals Schedule which includes all design and administrative submittals authorized by NTP 1 and NTP 2. The design submittal schedule is important to progressing the project construction as the preparation of the design plans is on the critical path for this Project as shown in the Proposal Schedule. Continuous interaction with the GDOT management team during the pre-construction period will assist in addressing and resolving challenges quickly to achieve approved Released for Construction (RFC) plans without causing a delay to the Project’s critical path. The design schedule includes contractual durations for GDOT reviews and the GDOT environmental re-evaluation process. Our design submittal approach will result in an overall shorter design duration by avoiding the cost, schedule, and coordination issues associated with revising the basic parameters of design late in the design process.

GDOT and the CWM TEAM will need to collaborate to expedite the comment resolution process. This will make certain we maintain the proposed design submittal schedule. Our Team will prepare complete and thorough submittal packages by incorporating internal quality control processes and procedures. The intent of the robust QA/QC program is to eliminate or minimize “Revise and Resubmit” responses and instead utilize comment resolution sessions and weekly “over the shoulder” meetings after GDOT’s QA reviews to address any outstanding comments to avoid a second complete review cycle. Our Team will incorporate a proactive approach to submittal management. We will prioritize, review, track, and plan conflict resolution meetings for all critical submittals by the following management techniques:

- Weekly progress meetings
- Comment resolution sessions
- “Over the shoulder” review meetings
- Detailed submittal and responsibilities tracking log

The CWM TEAM will include weekly agenda items specific to critical submissions and their current status helping to mitigate any potential delays to the Project before they occur.

All members of our Design-Build Team are familiar with GDOT’s web-based project management system. We have experience with this extremely useful tool for handling submittal, comment and response closeout for design and construction submittals on large-scale projects.

CWM’s Project Manager and Construction Superintendents will regularly meet with the ICE Design Team in its Norcross office during the development of the design documents. This measure ensures integrated and seamless design-build team collaboration during the design process. The focus will shift from ICE’s design office to the Project’s field construction office as the final plan packages approach RFC stage. We will solve issues that arise during construction internally among the design and construction representatives in the field office prior to issuance of a formal RFI.

**FORM M**

**Interim Completion Date Proposal**

Proposer Name: C. W. Matthews Contracting Co., Inc.

Proposer shall complete the required fields below for each Early Portion of the Work:

|  |                      |  |                             |
|--|----------------------|--|-----------------------------|
| <b>Early Portion of the Work<br/>Number on Schematic Diagram</b> | <u>EO Segment #1</u> | <b>Interim Completion Deadline<br/>(In Days after NTP 1)</b> | <u>698 Days after NTP 1</u> |
| <b>Early Portion of the Work<br/>Number on Schematic Diagram</b> | <u>EO Segment #2</u> | <b>Interim Completion Deadline<br/>(In Days after NTP 1)</b> | <u>723 Days after NTP 1</u> |
| <b>Early Portion of the Work<br/>Number on Schematic Diagram</b> | <u>EO Segment #3</u> | <b>Interim Completion Deadline<br/>(In Days after NTP 1)</b> | <u>917 Days after NTP 1</u> |
| <b>Early Portion of the Work<br/>Number on Schematic Diagram</b> | <u>EO Segment #4</u> | <b>Interim Completion Deadline<br/>(In Days after NTP 1)</b> | <u>944 Days after NTP 1</u> |
| <b>Early Portion of the Work<br/>Number on Schematic Diagram</b> | <u>N/A</u>           | <b>Interim Completion Deadline<br/>(In Days after NTP 1)</b> | <u>N/A</u>                  |
| <b>Early Portion of the Work<br/>Number on Schematic Diagram</b> | <u>N/A</u>           | <b>Interim Completion Deadline<br/>(In Days after NTP 1)</b> | <u>N/A</u>                  |
| <b>Early Portion of the Work<br/>Number on Schematic Diagram</b> | <u>N/A</u>           | <b>Interim Completion Deadline<br/>(In Days after NTP 1)</b> | <u>N/A</u>                  |
| <b>Early Portion of the Work<br/>Number on Schematic Diagram</b> | <u>N/A</u>           | <b>Interim Completion Deadline<br/>(In Days after NTP 1)</b> | <u>N/A</u>                  |
| <b>Early Portion of the Work<br/>Number on Schematic Diagram</b> | <u>N/A</u>           | <b>Interim Completion Deadline<br/>(In Days after NTP 1)</b> | <u>N/A</u>                  |
| <b>Early Portion of the Work<br/>Number on Schematic Diagram</b> | <u>N/A</u>           | <b>Interim Completion Deadline<br/>(In Days after NTP 1)</b> | <u>N/A</u>                  |



# **CONSTRUCTION STAGING & TRAFFIC MANAGEMENT PLAN**



## C.1.2 CONSTRUCTION STAGING AND TRAFFIC MANAGEMENT PLAN

**C.1.2(a) Traffic Management, Control, and Sequencing Approach** – A proactive plan to safely and efficiently move motorists through the project limits while minimizing delays, providing access for first responders and a safe environment for the traveling public and workers will be a key measure of project success and a means for maintaining the support and confidence of all stakeholders. The CWM Team will utilize a four-step process to achieve this measure of success that addresses traffic management from project development to final acceptance. This approach incorporates “lessons learned” from the I-85 Express Lanes project and other time-tested techniques in addition to innovative measures maintaining the maximum level of service possible for motorists traveling through the I-85 Widening Project. The CWM Team’s approach to traffic management includes:

1. ***Development of the Traffic Management Plan (TMP) submitted within 120 days of NTP 1.*** The TMP will meet the requirements of the FHWA Work Zone Mobility and Safety Program and provide the qualifications of the traffic engineering and operations personnel. The TMP will also outline the procedures for public notification, governmental entity coordination, installation and maintenance of traffic control devices, procedures for incident management and response and detailed plans for the detour of Spout Springs Road, Flowery Branch Road, and Jesse Cronin Road.
2. ***Development of a Traffic Control Plan (TCP) for each phase of construction.*** These detailed plans will be developed in accordance with the MUTCD, AASHTO’s Roadside Design Guide, GDOT Special Provision 150 – Traffic Control and the Technical Provisions. They will be submitted for each construction stage and all traffic shifts with details of all traffic control devices, striping and signage. Conceptual Construction Staging Diagrams are included in APPENDIX B of the Volume 2b – Technical Proposal Supplemental Information binder.
3. ***Development of a GDOT-DB Team Communications Plan within 30 days of NTP 1.*** This plan will supplement GDOT’s public outreach program. In addition, the CWM Team will establish a Hazard Advisory Radio (HAR) system to be utilized in conjunction with GDOT’s NaviGator System and GDOT’s Drive Smart website, to provide access to real-time travel information and project updates. Message boards set up at the beginning of the northbound and southbound lanes will display messages directing motorists to the website and will also display the AM frequency that can be tuned to for current traffic information.
4. ***The Organization of a Project Development Group (PDG).*** This step began early in the procurement stage. This group was tasked with developing the project specific framework for the TMP and to develop effective technical solutions for the TCP. As depicted on the conceptual construction staging diagrams, this PDG developed an innovative staged construction and phasing plan to move traffic through the I-85 Widening project with minimal impact to traffic. This group will continue meeting during the design and construction phases to refine and optimize the conceptual plans and ultimately oversee implementation of the detailed plans for each phase of the TCP.

**C.2.b Conceptual Construction Staging Diagrams:** Conceptual Construction Staging and Traffic Management Diagrams are included in APPENDIX B of the Volume 2b – Technical Proposal Supplemental Information binder.

**C.2.c Narrative Description on the Sequence of Construction:** The primary objective of the TMP will be to safely move the traveling public through the Project. A second, but equally important objective, will be to create and implement a plan that allows for accelerated construction that will be conducive to achieving the Interim Completion Deadlines, the Substantial Completion Deadline, and the Final Acceptance Deadline. The TMP will satisfy these objectives and will also address specific project challenges such as:

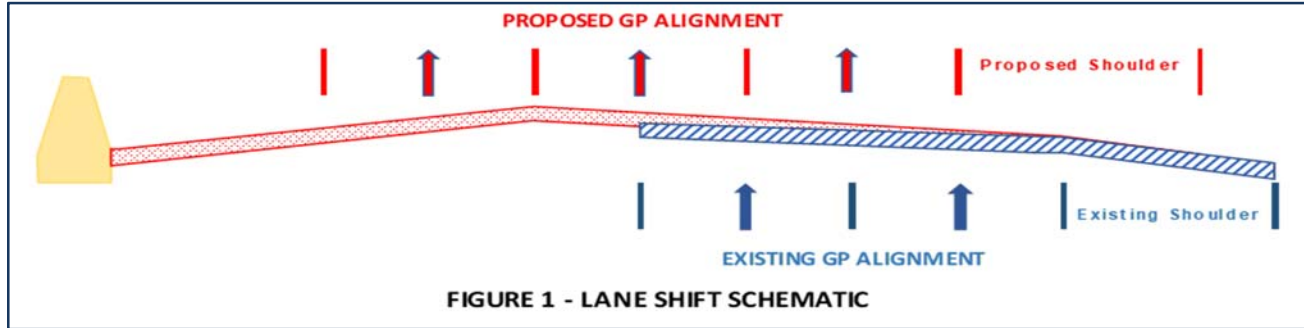
- Limited lane closures
- Restricted Duration and Length of Shoulder Closures
- Alignment Shift of Existing General Purpose Lanes
- Detours of Spout Springs, Flowery Branch and Jesse Cronin Roads

Due to the accelerated schedule and the desire for early opening of usable segments of the project, construction will occur simultaneously in multiple sections of the project as described in the Construction Phasing Narrative in the Construction Phasing & Early Openings TAB. To maintain consistent implementation of the TMP, a full-time and dedicated Traffic Control Team will be employed to ensure that implementation of traffic control plans is in accordance with standards and specifications and that traffic control devices are inspected and properly maintained. The Traffic Control Team will also be available to respond to issues and emergency situations as they arise.



Although each construction section presents unique challenges due to variations in the degree of cross slope correction needed (superelevated vs tangent sections), vertical curve corrections, and shoulder construction related to sound barriers and guardrail replacement, the approach to construction staging and maintenance of traffic is generally the same throughout the corridor. Regardless, all traffic control measures will follow the contract guidelines with shoulder closures, where allowed, limited to a maximum length of one mile for a maximum duration of 180 days.

Adding to the challenges of developing and implementing a traffic control and construction staging plan that minimizes the impact to the traveling public is the alignment shift of the existing general purpose (GP) lanes as illustrated in Figure 1.



To efficiently address the challenges and variables identified above, the CWM Team's typical construction staging and maintenance of traffic plan for the I-85 corridor is outlined below. This plan is also graphically shown in the Construction Staging drawings provided in APPENDIX B.

| CONSTRUCTION STAGING & MAINTENANCE OF TRAFFIC OUTLINE |  |  |
|---|--|--|
| STEP  | DESCRIPTION  | BENEFITS   |
| 1   | Correct existing GP cross slope and vertical curve issues under traffic by incremental milling and leveling. Also mill and overlay outside shoulder for temporary traffic shift to the outside to accommodate median construction. | Eliminates and/or minimizes 'droppoff' issues at the inside edge of existing GP lanes and proposed median widening. Also eliminates potential issues with eradication of existing pavement markings for the temporary traffic shift. |
| 2   | Temporarily shift both GP lanes of traffic to the outside and install temporary concrete barrier on inside edge of existing GP lanes.  | Potential issues with eradication of existing pavement markings eliminated. Existing 8' or greater shoulder and guardrail remains.   |
| 3   | Construct median widening from existing inside GP lane to and including concrete median barrier. Pavement section construction up and including the 19mm layer.  | 19mm layer ties into GP leveling with minimal or no droppoff allowing temporary concrete barrier to be removed without wedging for safety.   |
| 4   | Install 12.5mm SMA on inside shoulder and Proposed Lane #1. Remove temporary concrete barrier.   | 12.5mm SMA on inside shoulder and Proposed Lane #1 accomplished outside of traffic.  |
| 5   | Install 12.5mm SMA on Proposed Lane #2 and place temporary pavement markings for two lanes of traffic using nightly lane closures for existing GP Lane #1. Shift GP traffic to Proposed Lanes #1 and #2.                           | Joints in SMA layer are correctly lined up with lane lines / OFGC joints as required. GP traffic is now shifted away from outside shoulder in preparation for shoulder and sound barrier construction.                               |
| 6   | Install temporary traffic barrier on outside shoulder approximately four feet from EP of Proposed Lane #2. Construct sound barrier on shoulder and replace substandard guardrail.  | Adequate room for sound barrier construction and guardrail replacement to be accomplished with little or no impact to general purpose traffic.   |
| 7   | Remove temporary traffic barrier from outside shoulder. Place 12.5mm SMA and shoulder paving on Proposed Lane #3 and outside shoulder.   | 12.5mm SMA on Proposed Lane #3 accomplished with only nightly lane closures of Proposed Lane #2 and shoulder paving accomplished without lane closures.  |
| 8   | Place final surface (OGFC) and final pavement markings on new travel lanes. Traffic shifted to final alignment.  | Minimal single and double lane closures required to place final surface.   |



In addition to the staging and traffic maintenance strategies outlined above, the CWM Team will utilize other means and methods to minimize impacts on the environment, communities and the traveling public such as:

- ✓ Strategically plan the location of construction entrances to maintain access along the corridor for emergency responders.
- ✓ Stage construction operations to complete early work outside of traffic.
- ✓ Strategically stage and phase construction to ensure that environmental devices and BMP's are adequately maintained and functional to protect the environment.
- ✓ Use night time hours to complete high impact work; such as beam erection and bridge demolition.
- ✓ Installation of detours on Spouts Spring, Flowery Branch and Jesse Cronin Roads in accordance with the parameters outlined in the Design-Build Agreement.
- ✓ Install temporary signals during the detour of Spouts Springs Road and Flowery Branch Road.
- ✓ Plan construction activities to ensure access is maintained at all times to schools and properties along Spouts Springs Road, Flowery Branch Road and Jesse Cronin Road.
- ✓ Proactive outreach to the traveling public, first responders and school administrations in communicating upcoming construction operations, detour installations and other activities that may impact motorists.
- ✓ Utilize traffic control end of queue protection.

**C.2.d Intended Laydown, Recycling, Staging, Disposal and Maintenance Locations:** The CWM Team proposes to establish a laydown area in the vicinity of the SR 211 Interchange and, with GDOT's concurrence, a staging area in the vacant rest area located adjacent to Northbound I-85 just south of the I-985 Exit. Additional staging and equipment maintenance will be performed at CWM's asphalt plant located within 12 miles of the project in Candler, Georgia. Further maintenance support will be provided from CWM's main office in Marietta, Georgia.

Construction debris will be disposed of at Metro Green Recycling which is located on Pleasantdale Road in Doraville. This facility has the capability to recycle construction debris and to process soil for future use. Other permitted facilities may be used as they become available.

**C.2.e Description of How the Right-of-Way and Adjacent Roads and Properties Will Be Maintained and Protected:** The CWM Team will utilize the project maintenance crews to inspect the project on a routine basis to identify potential issues that may impact the traveling public and to promptly initiate action to resolve problems. The CWM Team will be proactive in keeping maintenance issues to a minimum by routinely:

- Watering exposed areas to control dust
- Maintaining erosion control devices
- Inspection of traffic control devices
- Maintaining construction entrances
- Regularly scheduled mowing
- Roadside litter pickup

Intervals for maintenance activities established in the Standard Specifications, Sections 104.05 and 105.14, and Maintenance during Construction will be the minimum requirements for the CWM Team.

When possible, construction activities that are in close proximity to residential areas will be scheduled during daytime hours to minimize noise and vibration. Haul routes will be planned to avoid residential areas. For any rock blasting, a vibration monitoring program will be established that includes pre-existing and post-construction surveys. Lighting for night time operations will be implemented in accordance with industry standards and considering safety of the construction personnel and traveling public, quality and impact to adjacent properties.



# PROJECT MANAGEMENT APPROACH





## C.1.3 PROJECT MANAGEMENT AND APPROACH

### C.1.3.1 GENERAL PROJECT MANAGEMENT

To successfully complete the base bid and additional segments within the contract time, while implementing a construction phasing plan that provides the traveling public with early use of portions of the project, requires a design-build (DB) team of experienced construction and design professionals. To meet the challenges of this fast-tracked project, this DB team must have first-hand experience in understanding the complexities of designing, permitting and constructing a fixed price/variable scope project. The DB team must also be able to develop and manage resource allocation strategies and a schedule that allows it to provide the maximum scope within the payment limitations imposed by the contract while maintaining efficiency by avoiding interruptions to project design, permitting or construction.

C.W. Matthews Contracting Co., Inc. (CWM) does not have to build a new DB team described above; a DB team that can meet the unique challenges of this I-85 Widening project. We are simply reassembling a team of experienced designers and construction managers who have worked together on similar projects, who have a local knowledge of the corridor and most importantly have a shared vision of success which will be confirmed by the delivery of not only the maximum number of segments but a quality project constructed on time, safely and in an environmentally sensitive manner.

The CWM Team understands that success of the project will depend on the ability to complete the design and permitting as early as possible. Consequently, we will build on the success of the I-85 Express Lanes Extension Project and the SR 400 Widening Project, where our understanding of the policies and procedures developed by GDOT's Innovative Delivery Office and our ability to communicate and work effectively with GDOT resulted in an early start of construction on both projects.

**C.1.3.1(a) Organization Chart Outlining Structure:** The CWM Team was organized based on the premise that each Key Personnel and Task Manager not only possesses the required technical expertise and relevant experience in their particular field or work discipline but also have the ability to:

- Work in an integrated design-build environment under the guidelines of a project management plan.
- Take a proactive approach to recognizing, communicating, and mitigating issues.
- Work within the parameters of an aggressive schedule while maintaining high quality standards.
- Have an implicit understanding of project expectations and policies.
- Clearly and concisely communicate project expectations with all team members.
- Coordinate with GDOT, SRTA and other stakeholders in a collaborative manner.

The CWM Team organizational structure, shown in the organization chart provided at the end of this TAB, identifies the project management team, and illustrates each member's function and relationship within the overall team.

**C.1.3.1(b) Key Personnel Function & Responsibility:** Achieving the aggressive milestones dictated by the project schedule will require immediate deployment of resources upon receipt of the Notice to Proceed. CWM and ICE have the managers, support staff and subconsultants, many of whom were involved in the project development phase, engaged and ready to start upon receipt of NTP1.

The following table identifies Key Personnel, their specific function and responsibility on the project and an indication of the time they will be involved in the project. While each member of the CWM Team will be fully committed to the success of the project and will always be available to carry out their assigned roles and responsibilities, the commitment percentages shown are our best estimate of the time each key personnel will spend on the project during the Design Phase (D) and/or Construction Phase (C).

| KEY PERSONNEL MATRIX |                                    |     |                    |   |
|----------------------|------------------------------------|-----|--------------------|---|
| NAME                 | POSITION                           | D-B | COMMITMENT         | ROLE/RESPONSIBILITY   |
| Bob Thompson         | Lead Contractor<br>Project Manager | ✓   | D – 75%<br>C – 50% | Responsible for managing and execution of all aspects of the project including design, planning, permitting, safety and project controls. |
| Peter Graf, PE, SE   | Lead Consultant<br>Project Manager | ✓   | D – 75%<br>C – 15% | Overall design management, coordination and planning for adequate design resources.   |



| KEY PERSONNEL MATRIX |                                  |     |                     |  |
|----------------------|----------------------------------|-----|---------------------|--|
| NAME                 | POSITION                         | D-B | COMMITMENT          | ROLE/RESPONSIBILITY  |
| Ryan Beech           | Construction Manager             | ✓   | D – 25%<br>C – 100% | Manage overall construction, resource allocation, and construction scheduling in accordance with project PMP, plans and specifications.  |
| Kyle Marchman, PE    | Asst. Contractor Project Manager | ✓   | D – 75%<br>C – 50%  | Assist the Project Manager by monitoring the project schedule and plan development. Responsible for submittal coordination, project controls and tracking.                                   |
| Tyler McIntosh, PE   | Lead Roadway Engineer            | ✓   | D – 75%<br>C – 20%  | Oversee design of roadways, and ramp systems and coordination of other discipline leads and construction managers.   |
| William Dial, PE     | Lead Drainage/MS4 Engineer       | ✓   | D – 50%<br>C – 5%   | Lead Roadway Drainage/MS4 Engineer responsible for storm water and MS4 design, and post construction Stormwater Management Reports.  |
| Melissa Rottenberg   | Lead Ecology/Permitting Engineer | ✓   | D – 50%<br>C – 5%   | Lead environmental and permitting activities including Section 404 Clean Water Act permitting and state stream buffer variance application.  |
| Sam Wade, PE         | Lead Structures Engineer         | ✓   | D – 75%<br>C – 20%  | Lead Structural Engineer for bridge overpass replacements and Mulberry Creek mainline replacement and retaining walls required for the project.  |
| Russ Grimes          | Construction QC Manager          | ✓   | D – 20%<br>C – 100% | Responsible for day to day management of the contractor's quality control program and coordination with GDOT's quality assurance program.  |
| Zachary Taylor       | Project Engineer                 | ✓   | D – 20%<br>C – 100% | Responsible for providing technical and administrative support to the construction team including traffic control and subcontractor scheduling.  |
| Will Stevenson       | Roadway Superintendent           | ✓   | D – 10%<br>C – 100% | Responsible for roadway construction in accordance with design and contract requirements including safety, erosion control, traffic control, resource planning and subcontractor scheduling. |
| Steve Aponik         | Structures Superintendent        | ✓   | D – 10%<br>C – 75%  | Manage bridge and wall construction in accordance with design and contract specifications including scheduling, safety, environmental, and quality control.                                  |

Note: ✓ in D-B denotes individual with past design-build experience.

**C.1.3.1(c) Task Managers' Qualifications and Experience:** Task Managers selected for the CWM Team have experience with GDOT plans, specifications and processes with several already working on the I-85 Express project. Each manager understands their role and the expectation that the project is delivered on-time and on-budget. The following table outlines each Task Manager's qualifications and experience for their role. Again, the commitment percentages shown are an estimate of the time each manager will spend on the project during the Design Phase (D) and/or Construction Phase (C).

| TASK MANAGERS MATRIX                                     |         |     |                  |   |  |
|--|---------|-----|------------------|---|--|
| TITLE & NAME   | YRS EXP | D-B | COMMITMENT       | ROLE/RESPONSIBILITY   | YEARS OF EXPERIENCE / QUALIFICATIONS   |
| <b>TASK MANAGERS</b>                                     |         |     |                  |   |  |
| Worksite Utility Coordination Supervisor<br>Jeff Jacques | 34      | ✓   | D- 60%<br>C- 50% | Utility coordination. Manage adjustments and coordinate design with Utility Owners and design engineer.     | 34 years of highway construction experience including four years as a GDOT District Utilities Engineer, now serving as a Project Utility coordinator on projects including the I-85 Express Lanes Extension.   |
| Lead Geotechnical Engineer<br>Thomas Scruggs, PE         | 34      | ✓   | D- 50%<br>C- 15% | Preparation of geotechnical reports and management of site investigations, laboratory testing and analysis. | 34 years of experience in the geotechnical engineering field investigating site conditions, analyzing laboratory tests, preparing bridge and retaining wall foundation reports, and soil survey reports. Involved in five previous D-B projects for GDOT. BS Civil Engineering |
| DBE Manager<br>Benny Brown                               | 19      | ✓   | As Required      | Manage DBE outreach program and document performance.   | 19 years of overall experience with 12 years of DBE outreach programs and DBE contract compliance. Bachelor of Business Administration   |



| TASK MANAGERS MATRIX                                     |         |     |                   |   |  |
|--|---------|-----|-------------------|---|--|
| TITLE & NAME   | YRS EXP | D-B | COMMITMENT        | ROLE/RESPONSIBILITY   | YEARS OF EXPERIENCE / QUALIFICATIONS   |
| <b>Environmental Compliance Manager</b><br>Brian Johnson | 17      | ✓   | D- 25%<br>C- 50%  | Ensure compliance with environmental laws, regulations and policies. Coordination with WECS to ensure compliance.       | 10 years of experience involving design of erosion control plans and supporting documentation for environmental permitting and 7 years of direct field experience in managing compliance of erosion control plans.                     |
| <b>Traffic Control Supervisor</b><br>Jeff Duncan         | 31      | ✓   | D- 15%<br>C – 25% | Responsible for the implementation, inspection, and maintenance of the MOT plan.  | An industry leader with 31 years of experience in all aspects of work zone traffic control, including lane closures and detour design and implementation for major interstate projects. Certified Worksite Traffic Control Supervisor. |
| <b>Survey Manager</b><br>Pete Wise                       | 28      | ✓   | 100%              | Management of control packages, construction surveying and production of As-Built plans.                                | 28 years of survey management experience coordinating multiple crews on fast track multi-staged projects including the I-75 South Managed Lane and I-85 Express Lanes Extension projects.  |
| <b>Safety Director</b><br>Ray Rodriguez                  | 11      | ✓   | D- 5%<br>C- 20%   | Development and implementation of safety and training programs. Safety audits to verify and improve safety performance. | 11 years of experience in risk analysis, safety data analysis and construction safety program management. Masters in Business Administration   |

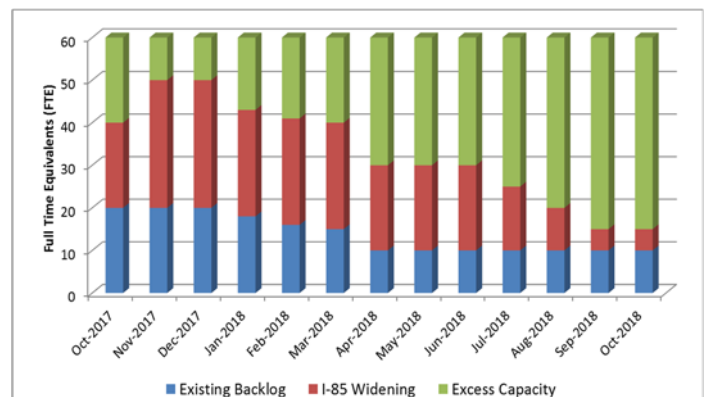
Note: ✓ in D-B denotes individual with past design-build experience.

**C.1.3.1(d) Current and Projected Workload and Backlog:** CWM performs over 95% of its work in the State of Georgia and will provide the majority of the construction and project management for the CWM Team. CWM has a current backlog of approximately \$644 million and a GDOT capacity rating in excess of \$2.7 billion. Projecting actual performance of the backlog into future years, the effective backlog for 2018 is approximately \$354 million, with \$195 million for 2019 and \$95 million for 2020. Based upon average annual revenues exceeding \$480 million for the last three years, these levels of backlog are far below the management and financial resources of the company.

With an expected construction start date in June of 2018, CWM has more than an adequate capacity to meet the challenges of the I-85 Widening project. Management of future workload will consider the backlog created by this project to ensure that both can be accomplished with the current resources of CWM. Similar to the I-85 Express Lanes Extension project, between NTP1 and NTP3, the CWM Team will develop a resource allocation and logistics plan to ensure resources are available, committed and deployed efficiently.

The CWM Team's local presence and long history in the market have given us the opportunity to develop close working relationships with subcontractors and vendors with proven GDOT experience and local resources. In addition to the CWM local pool of over 1,100 workers and 800 pieces of equipment that are ready to be assigned to the Project, a number of these subcontractors will join the team to provide additional labor, equipment and technical skills to the CWM Team.

The Design Team assembled for this project consists of strong design firms with a major local presence in Atlanta. ICE maintains a fully staffed transportation engineering office in Norcross with staff that have served GDOT for many years and that have successfully completed several DB Projects for GDOT. Subconsultant ARCADIS has a large full-service office that will provide significant technical resources to supplement ICE's staff. Their scope includes environmental, drainage, noise, ITS and traffic portions of the project design. Including our other dedicated local design subconsultants, this team has the resources and local knowledge to perform all work on this project using our local staff. However, should the need arise to expedite





the schedule or unique design scopes of work arise that are outside of the local resources of our firms, the design team will be able to draw from a vast pool of engineering professionals from the nationwide offices of our design team members with unparalleled D-B experience to meet the project requirements.

Based on the detailed design CPM schedule prepared as part of the Proposal Schedule (**Appendix A**), the design team has prepared a staff loading graph depicting the anticipated resource requirements over the life of the project's design phase. Including all subconsultants, the Design Team has a production capacity of approximately 60 local staff engineering resources. Of these available resources, a portion of them are already committed to existing projects under contract (shown as existing backlog). The remaining staff is available for production work on this project. As can be seen by the green portions of the bar graph above, the design team's excess capacity is sufficient to adapt to any short-term spikes in resource demand.

**C.1.3.1(e) Construction Management Approach:** The CWM Team's approach to management of the I-85 Express Lanes Project will be shaped by the Project Management Plan (PMP). The PMP will include multiple specific task plans that will give the management team a "tool box" to be utilized in managing the different facets of the project. The PMP will incorporate a management approach to ensure the Project is constructed in a safe, environmentally sensitive, and timely manner while maintaining GDOT's high standards for quality.

Bob Thompson, Lead Contractor Project Manager and Peter Graf, the Lead Design Consultant Project Manager have collaborated on the successful delivery of numerous design-build projects. Their past collaboration will enhance the PMP by incorporating "lessons learned" from past projects. Under their leadership, they will guide the CWM Team and utilize the PMP to address design and construction in an integrated manner from NTP1 through Final Acceptance.

In addition to incorporating "lessons learned" the PMP will be reviewed during the course of the project and updated as necessary to keep the "tool box" current. The roles and goals of all stakeholders can be addressed while giving the management team the necessary guidelines for the decision making and strategies to be utilized in managing the schedule, public involvement, safety, scope, quality assurance, and environmental commitments.

The CWM Team will utilize a two-phased approach, as shown in Figure 1, to manage the Project. Phase 1, the project development phase, began with the creation of a Project Development Group (PDG) to review the project from a high-level perspective, develop team goals and expectations, and set the agenda and schedule for the procurement phase. The PDG was later joined by additional key personnel, task managers, and staff to further develop the project plans, budget, the DBE plan and proposal.

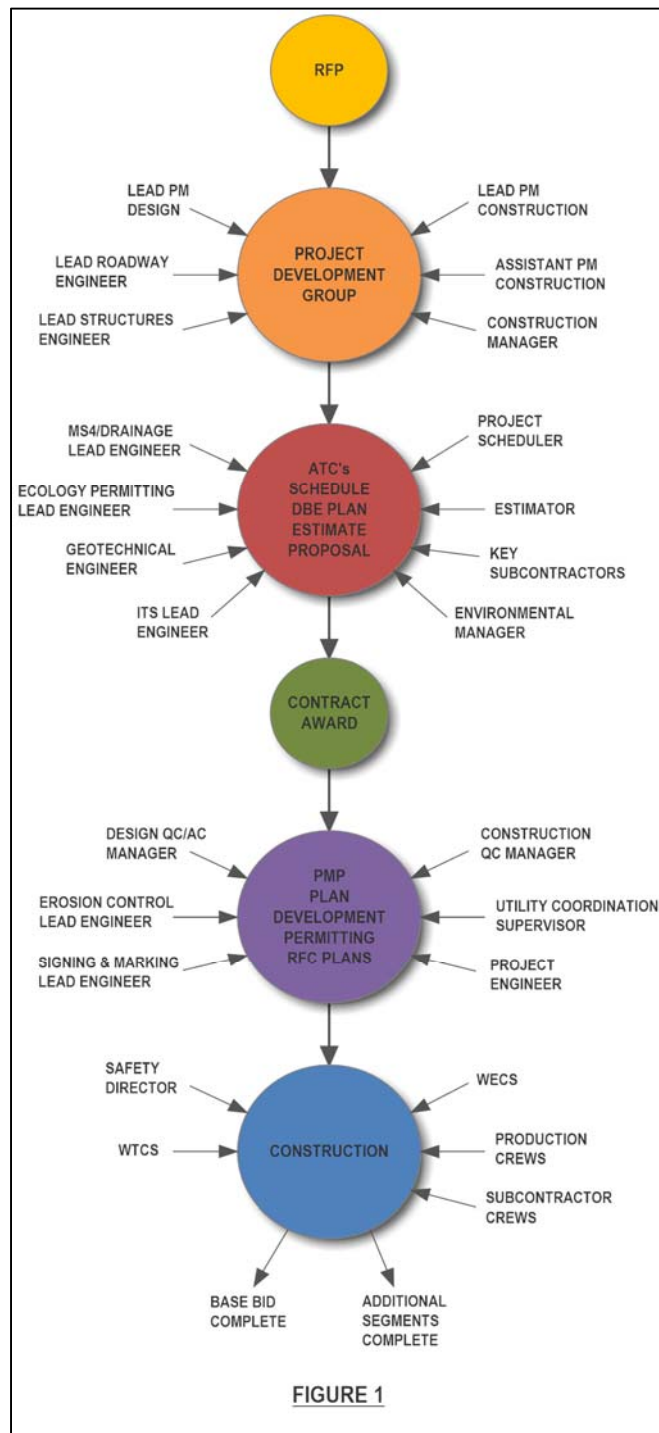


FIGURE 1



During the procurement phase, key personnel and task managers held regularly scheduled meetings and workshops working within the outline of the project development plan (PDP) to complete the following tasks:



After award of the contract, the CWM Team will transition into Phase 2, the design-build phase (DB Phase). This phase is focused on the design, permitting and construction of the Project. As shown in Figure 1, during the first part of this phase, the team is joined by additional key personnel and task managers to design and permit the project leading to RFC and erosion control plans. At this milestone, the construction team, whose key members have been involved in development of the project from the beginning, implement their logistical plan bringing in the construction resources to construct the base bid and additional segments.

As shown in the Key Personnel and Task Managers Tables above, the CWM Team's key management principle during the shift to the DB phase of the project is for the committed key personnel and task managers to remain engaged in the project from inception to completion. This principle ensures that first-hand knowledge and experience gained during the procurement and development phase is not lost by passing the project off to new staff. As depicted in Figure 1, the development phase staff will be supplemented by additional design staff, construction managers, safety, quality, and environmental managers who can benefit from the experience of the development staff to fast-track the design, permitting and construction planning.

A "lesson learned" from previous design-build projects, which will be incorporated in both phases of this project, is to include members of the Construction Team early in the development process continuing through design. Several of these experienced construction managers were participants in the PDG's and were instrumental in developing the MOT plan, construction logistical plan and project schedule. Their constructability reviews were an important part of the design review process because they identified potential issues; such as conflicts between utilities, drainage, traffic staging, structures, and ITS infrastructure. Being involved in the PDGs enabled these managers to develop working relationships with the Design Team, which opened lines of communication during the review process which will provide a "constructible" set of plans that will reduce the number of requests for information (RFIs) from the field, expediting a smooth transition from design to construction.

Past success has shown us early and effective communication and transparency among all stakeholders promotes sharing of information that results in a cohesive design and construction plan. The CWM Team encourages and desires participation in Project meetings at all levels from GDOT, FHWA, SRTA, designers, subcontractors, and utility owners to ensure that key elements of the project are coordinated into an efficient constructible design.

In addition to the regularly scheduled meetings, an effective communication plan among the CWM Team and GDOT is important in maintaining design consistency, quality and schedule. The CWM Team will utilize the GDOT project web-based management system for communications and for file sharing and electronic communications. With multiple subconsultants working on the design plans, a system must be established for design file management and communication. ICE will establish a dedicated and secure website that will facilitate internal team communications through the use of file sharing, events calendars, task lists and a project contact list. The SharePoint site will also be the location for sharing digital plan sets, submittals, meeting minutes, agendas, and other Project events between the Design and Construction Team. This collaborative software tool has been an effective management tool on the I-85 Express Lanes Extension project in Gwinnett County and has been used during the development phase of this Project.



The CWM Team's approach for advancing the design development will be to develop the overall project schematic and Submittal Schedule within 60 days of NTP1. Upon approval of these plans, staged design submittals will be developed and submitted to advance the Released for Construction (RFC) drawings consistent with the Project's Critical Path. The CWM Team is experienced in managing and coordinating submittal packages to balance the workload of reviewers while achieving expedited approval. Early negotiation with utility owners in segments with utility conflicts will have high priority so that utility plans can be finalized to facilitate early start of the work.

In addition to the staged design submittals, phased NOI's may be required to facilitate an early construction start, which is critical to achieving the early opening milestones committed to in FORM M. The CWM Team's approach will be to begin updating special studies at NTP1 to seek a design change NEPA Re-Evaluation that encompasses design changes. Our environmental subconsultant, ARCADIS has an efficient record of delivering data for ecology addendums, facilitating the GDOT consultant's preparation of the addenda and re-evaluation documents. If the NEPA Re-Evaluation and RFC drawings are completed before receiving the USACOE 404 permit, a phased NOI will be obtained to allow groundbreaking activities.

Upon receipt of a NTP3 and issuance of necessary agency approvals, RFC drawings and approval of all contract management plans, the CWM Team will transition into the project's construction phase. As discussed previously, a logistical plan for identifying the specific labor, equipment and material resources will be developed guided by the resource loaded schedule. Due to the linear nature of the project, the Construction Team will be structured to have managers with specific skill sets and their crews focused on specific disciplines of work; such as; Asphalt, Base Construction, Grading, Drainage, Structures, and Sound Walls. Due to the aggressive nature of the schedule, it will be necessary to have various disciplines working concurrently in multiple areas. It will be the responsibility of these managers to coordinate with the General Superintendent to efficiently deploy their crews into the available areas to construct their work. Allocation of resources will continue to follow the available RFC plans, with adequate resources allocated in sufficient numbers to meet the logistic and schedule requirements identified during the construction planning stage.

The CWM Team's plan for ensuring that adequate resources are allocated is to utilize the resource loaded project schedule and, based on an analysis of schedule durations, determine the number of crews required in each discipline to meet the production rates. Actual field conditions and production levels will refine the field personnel and equipment requirements. Once crew requirements are determined, equipment is allocated by specific needs and an analysis of what equipment can be shared between crews.

Past experience has demonstrated that self-performed work offers the maximum opportunity for flexibility and control of the Critical Path work. Planning the correct balance of self-performing and subcontracted work ensures that adequate resources are employed to maintain the Project Schedule. In addition, the CWM Team is committed to and has created a DBE Plan that will continue to identify and develop work packages for DBE firms.

Success of the CWM Team's subcontracting plan is predicated on key subcontractors joining in the PDG process in the development stage and these firms and others will continue to participate in Project meetings during the design and construction phases. These meetings give the CWM Team the opportunity to receive input to design, coordinate, and clearly define the scope and quality of subcontractor's work.

The Project Scope, and contract limitations on traffic restrictions will determine the daily operating hours of the project. The CWM Team's approach for routine operations will be for each shift to work 12 hours, Monday through Saturday. Certain other areas of the Project may work at night which will include activities that:

- Significantly impact traffic congestion on I-85
- Require coordination with the I-85 Express Lanes Extension Project for tolling infrastructure testing
- Involve bridge demolition, beam erection or deck pours
- Can only be performed during allowable lane closures
- Require traffic shifts or traffic pacing
- Involve the operation of numerous trucks, such as asphalt placement and aggregate or excavation haul
- Require two shifts per day to maintain the schedule

During the construction phase, it will be important to retain the confidence of the traveling public by timely response to maintenance issues. Maintenance Manager, A.J. McLean, will be responsible for maintenance during construction. He will



report directly to the Construction Manager, Ryan Beech, and will be able to deploy the appropriate resources to address maintenance concerns.

#### C.1.3.1(f) Participating Members and Major Non-Participating Members' Relationships:

The following is a table indicating the roles of Participating Members and Major Non-Participating Members and their shares of ownership of any joint venture entities.

| NAME  | ORGANIZATION POSITION          | JOINT VENTURE<br>% OWNERSHIP | PROJECT ROLE                 |
|---|--------------------------------|------------------------------|------------------------------|
| C.W. Matthews Contracting Co., Inc.           | Participating Member           | Not Applicable               | Developer & Prime Contractor |
| Infrastructure Consulting & Engineering, PLLC | Major Non-Participating Member | Not Applicable               | Lead Engineering Firm        |

The following is a table showing the relationship between any of the Participating Members and Major Non-Participating Members.

| NAME  | ORGANIZATION POSITION          | RELATIONSHIP  |
|---|--------------------------------|---|
| C.W. Matthews Contracting Co., Inc.           | Participating Member           | CW Matthews is the sole Participating Member and will be the contracting entity with GDOT                       |
| Infrastructure Consulting & Engineering, PLLC | Major Non-Participating Member | ICE is the sole Major Non- Participating Member and will operate under a subcontract agreement with CW Matthews |

#### C.1.3.2 INTERNAL ORGANIZATION SYSTEMS

**C.1.3.2(a) DB Team Integration:** The CWM Team understands that the most critical relationship for success of the I-85 Widening Project is between GDOT and the CWM Management Team. To foster this relationship, the CWM Team will promote a work environment that encourages communication, trust, cooperation, and mutual respect among all stakeholders. CWM has a long history of dispute avoidance based on its commitment to developing and maintaining an atmosphere that encourages open lines of communication, supports discussions, timely recognition and resolution of disputes, aligns expectations while integrating GDOT, SRTA, the CWM Team and other stakeholders into one unified team with common goals.

The CWM Team will employ its time proven strategy of meeting integration and encouraging the participation in Project meetings at all levels by GDOT, SRTA, subcontractors, designers, and utilities to foster the sharing of information across all disciplines. The GDOT/CWM Team will establish a protocol for meetings, which will begin with two Project Kickoff Meetings. The participants in the first meeting will be GDOT and the CWM Team. This meeting will act as an open forum for candid discussions related to ways the parties will work together, communications protocol, identification and prioritization of concerns, issue resolution, establishment of common goals and the project schedule. The meeting will provide a framework for establishing the means and methods going forward for achieving project goals. A second Kickoff Meeting following the same format will be held with a wider range of stakeholders; including utility companies, SRTA, FHWA, Gwinnett County and other affected stakeholders.

The GDOT/CWM Team will establish a calendar for meetings including technical staffs, construction managers, utilities, safety personnel, subcontractors and vendors to facilitate coordination between design and construction increasing the efficiency of the GDOT/CWM Management Team. These regularly scheduled meetings are listed in the following table.

| MEETING                                       | FREQUENCY         | PARTICIPANTS  |
|---|-------------------|---|
| Kickoff Meeting #1 & Kickoff Schedule Meeting | 14 Days from NTP1 | GDOT, CWM Team  |
| Kickoff Meeting # 2                           | Project Start     | GDOT, SRTA, CWM Team, FHWA, Community Groups, Utilities, and other Stakeholders |
| Technical Group                               | As Needed         | GDOT, CWM Team Technical Staff  |
| Project Development Group                     | Weekly            | GDOT, Design, Construction, QA/QC, Utilities, Subcontractors                    |
| Design Quality                                | As Needed         | GDOT, Design, Construction, Quality   |



| MEETING                     | FREQUENCY              | PARTICIPANTS  |
|-----------------------------|------------------------|---|
| Construction Logistical     | Bi-Weekly              | Construction, CWM Senior Management                                       |
| Utility Coordination        | Bi-Weekly              | GDOT, Utilities, Design, Construction                                     |
| Construction Coordination   | Weekly                 | CWM, Construction, Subcontractors, Design, Quality, Schedule, Safety, MOT |
| Kickoff Schedule Meeting #2 | 30 Days prior to NTP 3 | GDOT, CWM Team  |
| Project Meeting             | Monthly                | GDOT, SRT, CWM Senior Management  |
| Safety Hazard Analysis      | Daily                  | Construction, Subcontractors  |
| Safety                      | Monthly                | GDOT, Construction, CWM Senior Management                                 |
| Schedule Review             | Monthly                | GDOT, CWM Senior Management, Schedule, Construction, Project Controls     |

In addition to the strategies outlined above, communications among all parties will be enhanced by the co-location of the CWM Team and GDOT and its consultants prior to NTP 3.

**C.1.3.2(b) Decision-Making Process:** The CWM Team is well positioned to avoid disputes because the major partners, major subconsultants and many of the subcontractors have worked together in multiple D-B endeavors without previous disputes or litigation. Each participant on the team understands that our decision-making process is based on an inclusive environment that gives us the ability to manage high profile, fast-tracked projects while maintaining an atmosphere that encourages the communication of issues in a receptive non-threatening manner. This approach supports and encourages early recognition and resolution of project challenges. The CWM Team's management strategy of meeting integration promotes dispute avoidance through constant communication among all stakeholders, reducing the chance of misunderstanding.

CWM has a long history of dispute avoidance based on its commitment to developing and maintaining an atmosphere that encourages open lines of communication, supports discussions, timely recognition and resolution of disputes, aligns expectations while integrating GDOT, SRTA, the CWM Team and other stakeholders into one unified team with common goals. When a dispute is identified, resolution is encouraged at the lowest level possible at the earliest possible time. If the issue cannot be resolved at this level, the issue will be referred to the next level of management and will be monitored by the Project Manager, who will focus the Management Team on a timely resolution to avoid schedule or cost impacts. Issues that affect the Critical Path will be given the highest priority.

In the event there is a dispute, contract agreements mandate that work will continue through the dispute resolution process while not affecting the schedule. Bob Thompson, the Project Manager, has full authority in the final decision-making process.

**C.1.3.2(c) Communication and Documentation:** The Project Manager will provide a protocol for documentation and communication to team members on the status of issues that may be in dispute or require escalation to higher management levels. In the event that an issue is not resolved at the lowest level and requires escalation to higher levels, contract provisions already accepted by the lead designer and major subcontractors will provide for unimpeded continuation of all work while negotiating a resolution of the issue.

The foundation of the Project communication plan is our meeting integration strategy which will give all stakeholders the opportunity to meet face-to-face on a regularly scheduled basis to communicate the status of project goals, expectations, construction, environmental and quality issues, safety, public outreach and schedule. Each meeting will be documented by minutes that will be available for review by all participants and action item lists will be developed to identify critical issues and establish milestones for resolution.

On a daily basis, the CWM Team will utilize the GDOT web-based management website for all file storage, communication and correspondence. This system will provide automated tracking of time critical submittals and will be the official record of all project communication. CWM will utilize Vista by Viewpoint Version 6.15 for internal financial controls and Oracle Contract Manager Version 14 for internal document management control.

**C.1.3.2(d) Quality Management:** The quality management team has been structured in a manner that facilitates the independence of the quality managers from the production operations. The quality Team will develop the Project Quality Management Plan (QMP), which will include a Design Quality Management (DQM) Plan and a Construction Quality



Management (CQM) Plan, to be the core document for managing the quality of the project and documentation of any changes from the design processes or nonconforming work through a Nonconformance Report Process. The DQM will define the specifications, qualifications and procedures for developing a quality design. The CQM will document the detailed procedures, specifications and frequencies for construction quality verification.

The quality management process starts at project inception with submittal of the QMP no later than 30 days from NTP 1 and continues through project acceptance. The DQM Plan will outline the procedures for a system of independent design checks and as illustrated on the CWM Team organizational chart, the Design QA Managers, Larry Cook, PE, and James McNabb, PE, function independently of the Design Team by reporting to the Lead Contractor Project Manager, Bob Thompson.

ICE has developed an extensive Quality Assurance/Quality Control (QA/QC) program which it requires its staff to follow. Larry Cook, PE, with more than 30 years of transportation-related experience, will serve as the design QA/QC Manager, and will be responsible for ensuring the project follows ICE's established QA/QC practices. As part of ICE's project-specific QA/QC plan, Larry and the Design Managers will develop internal plan checklists that ensure the project meets the intended scope, adheres to the highest standard of quality, and reduces the need for re-work. ICE's internal checklists will be built around the GDOT Design Policy Manual, GDOT EDG and PPG, GDOT Bridge and Structures Policy Manual QC/QA process —

including checklists from the Bridge and Structures Detailing Policy Manual, Field Plan Reviews and GDOT QC/QA Manual — but will expand to ensure all data is appropriately shown and that the design meets all local, state, and federal guidelines. The QA/QC plan is not intended to be a check-off at the end of the day, but rather a procedure to be integrated into the decision-making process when developing this project. ICE will utilize Bluebeam's Studio Sessions to perform interdisciplinary reviews and electronically document the "Quality Control conversation" between the designer and the checker. The Studio Sessions platform provides a repository for storing pdf plan sets, and allows each reviewer to make comments simultaneously, in real time, on one document. The marked comments are then automatically processed to a comment log associated with each pdf document. Each comment or mark-up must be addressed by the designer and can only be confirmed by the comment originator. The internal QA phase ensures that appropriate QC measures were taken and that the documentation creates an auditable paper trail between the designer and the reviewer. These procedures ensure all project decisions are justified, properly coordinated and documented across all design disciplines.

The Construction Quality Control Manager, Russ Grimes, will coordinate the construction engineering inspection and testing functions of the CQM Plan which will be performed independent of the Design-Build Team by GDOT or authorized representatives. Any materials verification by the Design-Build Team required by the specifications will be performed in GDOT certified labs under the supervision of Andrew Brooks, PE who has no responsibilities for performance of the work.

**C.1.3.2(e) Interfacing with Stakeholders:** CWM recognizes the importance of retaining the trust and confidence of GDOT, SRTA, FHWA, GDOT's consultants and other stakeholders during the course of the project and welcomes their participation and involvement in the Project. Beginning at the Kickoff Meetings, all stakeholders will be integrated into the project meeting protocol. Each entity, such as the utilities and subcontractors will be invited to participate in PDG and Technical Meetings to promote communications and the early identification and resolution of issues before they impact the schedule and timely completion of the Project.

The Public Information and Communications Plan (PICP) will be critical to maintaining the support of the traveling public and media for the project. The CWM Team's Public Information Coordinator (PIC) will collaborate with GDOT in development of a comprehensive PICP that will outline the communications protocol utilized by GDOT to keep the public informed of scheduled project activities, traffic restrictions and emergency situations. The PIC will coordinate with GDOT

| Markup | Page    | Author           | Color  | Comments  |                      |             |  |
|--------|---------|------------------|--------|---|----------------------|-------------|--|
|        | Page 18 | elizabeth.scales | Yellow | Showing the Topo EOP line has been sufficient in the past.  |                      |             |  |
|        | Page 18 | Larry Cook       | Red    | Show sta/offset for for every PC, PCC & P along gutter line |                      |             |  |
|        | Page 18 | elizabeth.scales | Yellow | Labels were added   |                      |             |  |
|        | Page 18 | Larry Cook       | Red    | Label End Type 2 C&G + sta/offset                           |                      |             |  |
|        | Page 18 | elizabeth.scales | Yellow | Labels were added   |                      |             |  |
|        | Page 18 | Larry Cook       | Red    | Label Begin 10' Paved Shoulder + sta/offset                 | 7/19/2016 6:25:11 PM | OCR-SUB     |  |
|        | Page 18 | elizabeth.scales | Yellow | A label was added   | 8/1/2016 9:35:42 AM  | Re: OCR-SUB |  |

Sample Quality Control Tracking Sheet from Blue Beam Studio Session



on a day to day basis to facilitate communications and will attend and provide support for stakeholder and public meetings and public outreach presentations. The CWM Team will provide GDOT a Monthly Public Information and Communications Report documenting communication efforts.

### C.1.3.3 SAFETY

At CWM Safety is Job #1. This is not a slogan, but a fact. As evidenced by the commitment of time and resources beginning with the President of CWM, the safety of our employees, subcontractors and the traveling public is of paramount importance and the first responsibility of all members of the CWM Team. In conjunction with the Project Management Plan, CWM will submit a comprehensive Safety Plan that fully describes the policies, plans, training programs, work site controls and incident response plans. All members of the CWM Team will be committed to the Safety Plan and a 'Zero-Accident' goal for the project and the traveling public. The focus of the Safety Plan is on loss prevention using safety training and hazard identification, awareness and avoidance.

CWM's commitment to the Safety Program is demonstrated by the fact that CWM's loss experience rates are continuously below industry standards. The CWM Safety Program is a proven system with its foundation in the philosophy of insisting that all personnel have day to day responsibility for safety, but with particular focus on the Foreman and Worker level, and continuous Safety training and education. This philosophy empowers personnel who directly perform the work to have the appropriate training and resources necessary to recognize and mitigate hazards immediately. The effectiveness of the program is continually evaluated through our formal Safety Audit Program. This program provides regularly scheduled Safety Audits of randomly selected operations. Participation in the audits include personnel at every level, from senior management to craft workers, and provides an immediate and recordable safety evaluation. A monthly Loss Control Analysis and root-cause analysis of incidents will be used to evaluate the success of the Safety Program.

The CWM Safety Program will include the following key elements:

- Senior management commitment to safety
- Incident response and notification procedures
- Dedicated Safety Manager with responsibility for safety of project personnel and the public
- Safety orientation for every employee and subcontractor prior to beginning work
- Substance abuse prevention program that includes pre-employment testing and random verification after employment
- Experienced personnel for implementation and monitoring of Maintenance of Traffic Plans
- Protocols to ensure that all first aid and safety equipment is on-site
- Safety planning in all phases of project delivery
- Safety Audit Program
- Specialized Training in specific discipline areas
- Continuing Safety training and education
- Monthly project wide meetings and daily hazard analysis
- Protocols for accident investigation and follow-up actions

Ray Rodriguez is responsible for implementation of the CWM Safety Program. Ray has more than 11 years of experience in the construction industry managing safety programs and providing employee safety training. His onsite experience has helped him develop effective approaches to safety and compliance.

Continuous training is a basis of the CWM Safety Program and begins when a new employee is hired and continues throughout the duration of their employment. CWM offers 35 safety training classes per year that are tailored to the employees' discipline and exposure to specific hazards. Core components of the training program include:

- New hire orientation
- Defensive Driving
- 10-hour OSHA training course
- First Aid, CPR
- Alcohol Awareness



- Specific discipline training including Fall Protection, Competent Person, Confined Space Entry, Rigging, MOT Certified Flaggers, Crane Hand Signals and Crane Assembly

#### C.1.3.4 ENVIRONMENTAL MANAGEMENT

**C.1.3.4(a) Environmental Commitments:** The CWM Team is committed to environmental compliance and will mandate adherence to the environmental management plan through every phase of the project. Efficiently navigating the permitting process and effective environmental compliance are critical to success of the project. Our approach to permitting and environmental compliance began in the PDG phase with the early integration of the design NEPA lead, ecologists, compliance managers and construction managers into the Technical Groups and Project Development Groups to identify potential environmental issues and develop mitigation strategies to avoid potential schedule delays while ensuring that all environmental commitments are met.

Members of the CWM Team have a comprehensive understanding of regulatory requirements and best practices from their qualifications, local knowledge and past experience working on urban freeway projects. Their most recent first-hand experience was working together on the I-85 Express Lanes Extension project where the CWM Team was able to successfully navigate the NEPA Re-evaluation and permitting process that expedited the start of construction by four months.

The Environmental Management Team will be led by Melissa Rottenberg during the design and permitting phase and by Brian Johnson during the construction compliance stage. Melissa has 15 years of experience in federal and state permitting requirements and is a well-respected industry veteran. Melissa has developed relationships with the appropriate regulatory agencies that will enable the Team to have early communication and coordination with agencies to address any concerns. In addition, Melissa knows exactly what information GDOT's NEPA consultants will need to perform their re-evaluation since she has successfully performed the same role for GDOT on several D-B projects, including the Northwest Corridor and I-85 Express Lanes Extension projects. Brian Johnson has 17 years of experience in environmental engineering and serves as CWM's full-time Environmental Manager. Brian is experienced in developing and managing individual and general NPDES permits and storm water pollution plans and monitoring compliance with Section 404 permit conditions.

The following table identifies the environmental commitments, potential re-evaluations and documentation necessary to complete the project.

- NEPA Re-Evaluation for Design Modifications
  - ✓ Ecology Report Addendum
  - ✓ Assessment of Effects Addendum
  - ✓ Noise Report Addendum
  - ✓ Air Quality Report Addendum
- National Pollutant Discharge Elimination System (NPDES) Permitting and Notice of Intent
- Georgia Stream Buffer Variance
- Section 404 Nationwide or Regional Permit (if additional required)
- Section 404 Individual Permit (if additional required)
- Waste/Borrow Pit Local Land Disturbance Permits and Associated Documents
- Migratory Bird Treaty

The CWM Team's recent experience on projects of this size has led it to recognize that educating the construction team, including all levels of field personnel, of the project's environmental requirements is a key strategy in eliminating compliance issues. With an emphasis on looking ahead for early recognition of issues, the full-time Worksite Erosion Control Supervisor (WECS) assigned to this Project, and under the direction of Brian Johnson, will train our construction personnel on the specific project requirements.

In addition, Erosion Control Inspectors (under the direction of the WECS) will perform daily inspections of all applicable project components. Daily inspections of staging areas and BMPs will occur so that the full length of the project is inspected on a weekly basis, as required by NPDES permits. Immediate inspections will be conducted following qualifying rain events or other events which could possibly damage BMP's. At specific project locations, such as culverts, there will be



construction personnel with a WECS certification assigned to help with daily inspections and to ensure compliance with applicable regulations and erosion control requirements.

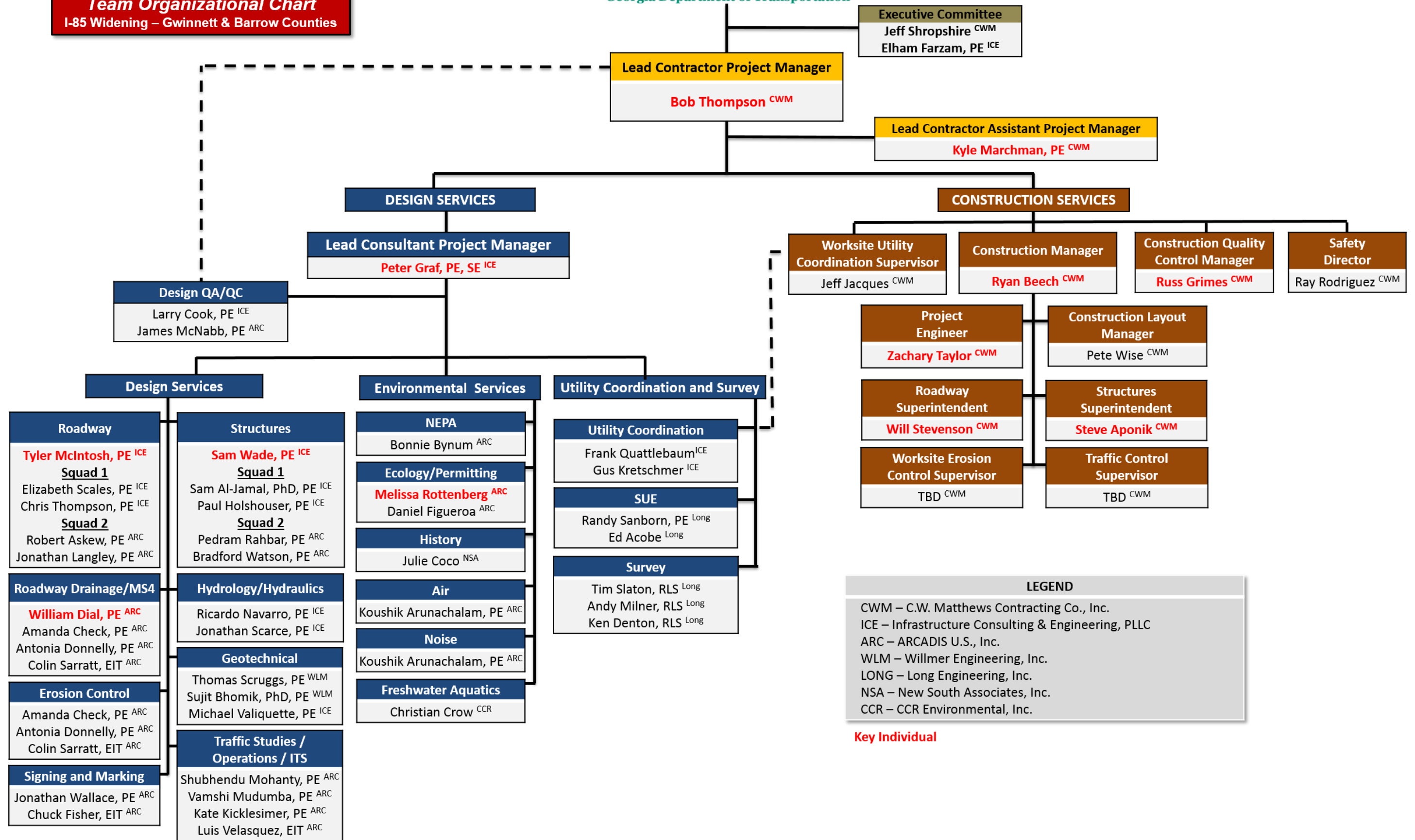
**C.1.3.4(b) Environmental Risks:** As discussed earlier, during the design phase, the CWM Team will continue to identify additional environmental impacts and risks, and will propose mitigation strategies to avoid, minimize, or eliminate environmental impacts. Listed below are potential environmental risks and a description of the CWM Team's approach to mitigate, eliminate, or reduce those risks.

| Risk  | MITIGATION   |
|---|--|
| Environmental Permitting Delays                             | <ul style="list-style-type: none"><li>• Thorough assessment and understanding of permitting requirements</li><li>• Early and continuous agency coordination</li><li>• Avoid stream buffer variance issues by designing with no impacts</li><li>• Designing the project within the already identified ROW</li></ul>   |
| Impact to Buffers, Streams, Protected Species, Aquatic Life | <ul style="list-style-type: none"><li>• Close monitoring and compliance with Erosion and Sediment Control Plans, variances and permits</li><li>• Limit construction entrance/exit areas</li><li>• Use dedicated erosion control personnel (WECS)</li><li>• Periodic re-training of WECS and construction personnel</li><li>• Train monitoring personnel in specific protected species recognition</li><li>• Schedule construction activities to avoid spawning/nesting/breeding seasons in accordance with the environmental commitments</li></ul> |
| Public Outreach   | <ul style="list-style-type: none"><li>• Coordinating closely with GDOT to maintain open communication channels</li></ul>   |

#### C.1.3.5 PROJECT MANAGEMENT INTERVIEW

The CWM Team looks forward to the opportunity to participate in the Project Management Interview. The four attendees representing the CWM Team are:

- Bob Thompson, Lead Contractor Project Manager
- Ryan Beech, Lead Contractor Superintendent
- Peter Graf, PE, Lead Design Engineer
- Tyler McIntosh, PE, Lead Roadway Engineer

**Team Organizational Chart**  
I-85 Widening – Gwinnett & Barrow Counties





# DBE UTILIZATION





## C.4 DBE UTILIZATION



The CWM Team is committed to meeting or exceeding the Project's DBE goal of 13% of the overall Project design and construction costs as evidenced by our executed Form I - DBE Certification and DBE Commitments List provided in the Price Proposal Submittal.

Our approach to maximizing DBE participation over the entire duration of the project is to proactively seek and identify opportunities for DBE participation during the pre-bid plan development, design, permitting and construction phases of the project.

Our first step in the effort to maximize DBE participation process was to update our internal DBE Solicitation List by researching The Georgia State UCP Directory and the GDOT Highway Construction Availability Report and develop a project specific DBE solicitation list. The goal of this study was to identify as many DBE firms and work classes specific to the scope and duration of this project that would provide opportunities for DBE participants.

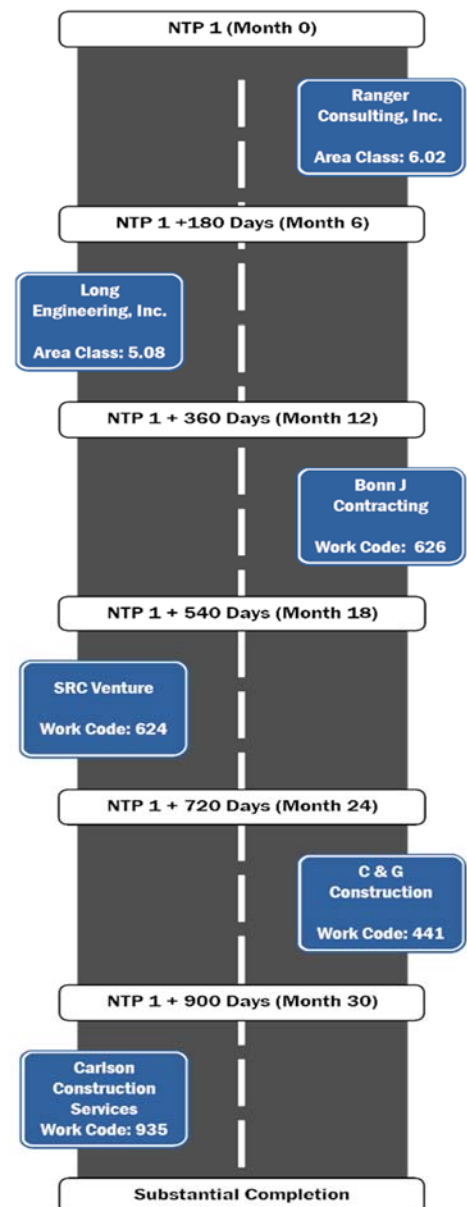
After the DBE solicitation list was complete, the CWM Team hosted a project specific DBE Subcontractor Opportunity Meeting on July 21, 2017. A project bid opportunity meeting notice was placed in the Atlanta Daily World and each DBE firm we identified was extended an invitation to attend. This meeting gave potential DBE subcontractors and vendors information including:

- Definition of Project Scope
- Management Approach
- Potential Opportunities by Work Class
- Conceptual Quantities & Schedule
- Contact Information for Questions
- Information on CWM's Bidding and Document Access Process

During the Project Development Phase, there have been follow up meetings and discussions with individual firms resulting in a plan that includes utilizing at least one DBE firm in each six-month increment from NTP1 to Substantial Completion of the project as demonstrated in the chart to the right.

After award of the project, the CWM Team will implement its DBE Performance Plan that will continue to encourage DBE contracting opportunities and DBE contract compliance by:

- Identifying specific categories of services and work tailored for DBE firms.
- Developing bid packages that are structured to encourage DBE participation.
- Providing DBE firms with timely information about plans, specifications, plan revisions and contract requirements for solicitation response.
- Providing assistance in the procurement process and good faith contract negotiations.
- Monitoring protocols that confirm the acceptability of DBE firms for work performed on this contract.
- Providing assistance in obtaining bonding, material and equipment resources.
- Utilizing the services of available minority organizations to provide assistance in the recruitment and placement of DBE firms.
- Reporting DBE commitments to GDOT on a monthly and annual summary basis including documentation confirming all payments to the DBE participants.





The efforts of the CWM Team during the Request for Proposal phase of the project have resulted in our commitment to utilize DBE firms for work in 29 different GDOT Work Codes or Area Classes in the design and construction of this significant project. These commitments are detailed in the Form I -DBE Commitments List; however, the following table identifies the DBE firms the CWM Team will utilize in 21 different Work Codes or Area Classes.

| ARE CLASS / WORK CODE DBE COMMITMENTS |                                     |   |                         |                          |
|---------------------------------------|-------------------------------------|---|-------------------------|--------------------------|
| No.                                   | DBE FIRM                            | PROPOSED SCOPE OF WORK                      | AREA CLASS OR WORK CODE | PARTICIPATION PERCENTAGE |
| 1                                     | Four Seasons Trucking, Inc.         | Haul Liquid Asphalt                         | 400b                    | 0.12%                    |
| 2                                     | Palmer, Incorporated                | Haul Asphalt Aggregates                     | 800a                    | 0.30%                    |
| 3                                     | Joe Dirt Hauling                    | Haul Asphalt                                | 400a                    | 0.37%                    |
| 4                                     | JSV Trucking                        | Haul Millings                               | 432a                    | 0.06%                    |
| 5                                     | Palmer, Incorporated                | Haul Soil within Project                    | 205a                    | 1.32%                    |
| 6                                     | Palmer, Incorporated                | Haul GAB                                    | 310a                    | 2.35%                    |
| 7                                     | Palmer, Incorporated                | Haul Rip Rap & Other Aggregate              | 603a                    | 0.15%                    |
| 8                                     | CYMCO 7, Inc.                       | Reinforcing Steel                           | 511                     | 0.44%                    |
| 9                                     | C&G Concrete Construction Co. Inc.  | Misc. Concrete (Flatwork)                   | 441                     | 0.15%                    |
| 10                                    | Celebrity Fence Company, Inc.       | Fence                                       | 643                     | 0.10%                    |
| 11                                    | Jake Martin & Son Contractors, Inc. | Grassing                                    | 700                     | 0.47%                    |
| 12                                    | Clean Water Consultants, Inc.       | Misc. Erosion Control                       | 163                     | 0.43%                    |
| 13                                    | Bonn J Contracting Inc. of Florida  | MSE Wall Construction                       | 626                     | 0.79%                    |
| 14                                    | Highway Services, Inc.              | Highway Signs                               | 636                     | 0.05%                    |
| 15                                    | Highway Services, Inc.              | Traffic Control (Temp Pvmt Marking)         | 150                     | 0.04%                    |
| 16                                    | SRC Ventures, LLC                   | Sound Wall & MSE Wall Anti-Graffiti Coating | 624                     | 0.62%                    |
| 17                                    | Carlson Construction Services, LLC  | Fiber Optic Systems                         | 935                     | 0.41%                    |
| 18                                    | GC Electrical Solutions, LLC        | ATMS (Supplier)                             | 940                     | 0.22%                    |
| 19                                    | Safety Signal Co., Inc.             | Highway Signs (Supplier)                    | 636                     | 0.04%                    |
| 20                                    | Long Engineering, Inc.              | SUE   | 508                     | 0.02%                    |
| 21                                    | Ranger Consulting, Inc.             | Geotech                                     | 6.02                    | 0.03%                    |



# PROJECT DIFFERENCES FROM RID





## C.2 PROJECT DIFFERENCES FROM REFERENCE INFORMATION DOCUMENTS (RID)

Through a series of weekly design meetings and value engineering sessions, the CWM Team identified many elements of this project as candidates for innovative design and construction processes. The goal is to provide GDOT a high-quality project while maximizing cost savings and incorporating an efficient project schedule. Although numerous innovative ideas were vetted by our Team during the development of our proposal and conceptual design, only the ideas that provided the greatest benefit to GDOT were submitted through the Alternative Technical Concept (ATC) process. The following table provides details of all our approved ATCs and whether the ATC was ultimately incorporated into our technical and price proposals. These ATCs represent the only material differences between our Team's design and the design presented in the Reference Information Documents provided by GDOT.

Our Team has taken full advantage of GDOT's ATC process, submitting 15 formal ATCs to GDOT for review. As a result of our Team's collaborative design and construction brainstorming efforts, 7 of these 15 ATCs were ultimately approved for inclusion in our proposal.

Evaluation of the changes in the design resulting from implementation of these ATCs included a review of potential changes in impacts to the natural and human environment that have been previously evaluated and cleared by GDOT. All of our design changes related to these ATCs can be implemented without any change to the noise, wetland, or stream impacts. Therefore, we are confident that the changes to the final design proposed by our ATCs can be incorporated through a standard "No-Change" NEPA Re-evaluation process. Schematic plans illustrating these differences are included in Appendix E.

| ATC Number | ATC Concept  | Status               | Included in CWM Proposal |
|------------|--|----------------------|--------------------------|
| CWM-001    | Type III Cement Concrete Mix Designs                               | Approved             | YES                      |
| CWM-003    | Increase Maximum Allowable PSC Beam Lengths                        | Approved             | YES                      |
| CWM-005    | Use Alternate Beam Type  | Approved             | YES                      |
| CWM-006    | Increase Maximum PSC Beam Spacing to 10'-6"                        | Approved             | YES                      |
| CWM-011    | Revise Pavement Design to substitute 4" GAB for 2" 25 MM Superpave | Approved             | YES                      |
| CWM-012    | Open Portion of Base Bid without Overpass Completion               | NOT AN ATC – Allowed | YES                      |
| CWM-015    | Increase Maximum Lift of 25 MM Superpave to 5"                     | Approved             | YES                      |

In addition to the ATC process, our Team also investigated innovative solutions to optimize the preliminary design presented by GDOT in the Reference Information Documents. These optimizations do not materially affect the design presented as a RID. These optimizations are summarized below:

| Optimization               | Benefit  |
|----------------------------|--|
| Profile Optimization       | Minimize leveling required to provide appropriate cross-slope and ensure profile meets the required Design Speed |
| MS4 Drainage Optimization  | Revised drainage design to ensure MS4 requirements are achieved  |
| Sound Barrier Optimization | Adjusted Sound Barrier locations for constructability and to minimize impacts to identified ESA's                |



July 25, 2017

C.W. Matthews Contracting Co., Inc.  
Attention: Robert W. Thompson, Jr.  
Lead Contractor Project Manager  
Post Office Drawer 970  
Marietta, Georgia 30061

RE: ATC CWM-001 – Type III Cement Concrete Mixes

Dear Mr. Thompson:

The Georgia Department of Transportation has completed review of the above mentioned ATC and provides the following response:

          X           The ATC, as submitted, is acceptable for inclusion in the Proposal.

                           The ATC is not acceptable for inclusion in the Proposal.

                           The ATC is not acceptable in its present form, but may be acceptable upon the satisfaction, in GDOT's sole discretion, of certain identified conditions which must be met or clarifications or modifications that must be made, including, but not limited to, any required environmental reevaluation related to the ATC, which GDOT may condition upon a GDOT Re-evaluation Period.

                           The submittal does not qualify as an ATC but may be included in Proposer's Proposal because it appears to be within the requirements of the RFP.


                           The submittal does not qualify as an ATC and may not be included in the Proposal.

Please see the attached comments that were generated relative to the decision provided above.

Any resubmitted ATC shall be provided with the same three digit number with an alpha numeric letter starting with the letter "A" for the first resubmittal and "B" for a second submittal, etc., if necessary and address all comments for re-review.

The Georgia Department of Transportation appreciates the effort by your team to provide innovation and improve the overall success of the I-85 Express Lanes project.

Sincerely,

A handwritten signature in blue ink, consisting of several overlapping loops and a trailing line.

ATC Review Team Chair

Attachment: ATC Review Form

CC: Meg Pirkle, Chief Engineer – Memo only  
Joe Carpenter, Division Director of P3 – Memo only  
Darryl VanMeter, Asst. P3 Division Director / State Innovative Delivery Administrator  
General Files – Memo only

**CONFIDENTIAL**

**Attachment 1  
ATC Review Form**

**1. General comments:**

- a. Accepted; Due to the increased cost of this ATC, the DB Team is reminded to factor the increase in their cost loaded schedule proposal.

**2. Environmental comments:**

- a. N/A

**3. Utilities comments:**

- a. N/A

**4. Right of Way comments:**

- a. N/A

**5. Geotechnical comments:**

- a. N/A

**6. Roadway comments:**

- a. N/A

**7. Drainage/Erosion Control comments:**

- a. N/A

**8. Bridges/Structures comments:**

- a. N/A

**9. ITS comments:**

- a. N/A

**10. Signing and Marking comments:**

- a. N/A

**11. Other**

- a. N/A



**C. W. Matthews Contracting Co., Inc.**

**I-85 Widening Project**

**PI No. 110610; Gwinnett & Barrow Counties**

**ALTERNATIVE TECHNICAL CONCEPT CWM-001**

**CONFIDENTIAL ATC**

**Submitted: July 06, 2017**





***C. W. MATTHEWS CONTRACTING CO., INC.***

***Post Office Drawer 970  
Marietta, Georgia 30061***

July 6, 2017

Mr. Chip Meeks  
Office of Innovative Delivery / P3 Administrator  
Georgia Department of Transportation  
One Georgia Center, 19<sup>th</sup> Floor  
600 West Peachtree Street, NW  
Atlanta, Georgia 30308


RE: I-85 Widening Project – Confidential ATC  
Alternative Technical Concept CWM-001 – Type III Cement Concrete Mixes

Mr. Meeks,

In accordance with the requirements established in the Instructions to Proposers issued May 26, 2017 and amended June 30, 2017, C. W. Matthews Contracting Co., Inc. hereby submits and requests review of the above referenced Alternative Technical Concept.

As requested, two hard copies and two electronic copies in PDF format, which includes all technical information, are provided with this submittal. If additional information or clarifications are needed, please do not hesitate to contact me at your convenience.

Sincerely,  
C. W. Matthews Contracting Co., Inc.

  
Robert W Thompson, Jr.  
Lead Contractor Project Manager

# ATC CWM-001 – Type III Cement Concrete Mix Designs



## I-85 Widening Design Build Project – Confidential ATC



Submittal Date: 07/06/2017

### **1. Description:**

*The C. W. Matthews Team (CWM)* proposes to utilize Type III Cement in bridge substructure and superstructure elements to reduce the curing time required prior to removal of forms and prior to exposing new concrete to loads. Examples of the proposed mix designs are shown in Attachment B. The project specific mix design(s) will be submitted in accordance with Section 500.1.03 A of the Special Provisions.

### **2. Usage:**

Type III Cement Concrete will be utilized on cast in place bridge substructure and superstructure elements.

### **3. Contract Changes:**

To implement this Alternative Technical Concept, a deviation from the following section of the RFP would be required:

1. *Volume 3 Programmatic Technical Provision for Design-Build Agreement dated June 30<sup>th</sup>, 2017 – Section 13, Structures, Page 13-1, General Requirements:*

The design of the Project shall be in accordance with Volume 3 Manuals (Technical Documents) and the requirements of the DB Documents.

The GDOT 2013 Edition of the Standard Specifications is referenced in Volume 3 Manuals as a Technical Document. Therefore, the requirements of these Specifications are applicable to the construction of the bridge on the project.

To implement this Alternative Technical Concept, a deviation from the following section of the Standard Specifications would be required:

500.2 Materials – Use Type 1 or Type II Portland cement or Type IP Portland-Pozzolan unless otherwise specified.

This required deviation is indicated in Form P provided in Attachment A to this ATC.

### **4. Justification:**

The I-85 project stipulates a limited duration closure for the replacement of several overpasses. Additionally, early opening of various project segments is a stated project goal and completion of staged, mainline bridges will become critical path within their respective segments. Use of the Type III concrete mix will expedite the completion of critical path bridge elements.

Shrinkage cracking is a consideration with the use of Type III cement. The proposed mix designs are formulated with this in mind and have included the addition of 3.5 lbs. of fiber per cubic yard

# ATC CWM-001 – Type III Cement Concrete Mix Designs



## I-85 Widening Design Build Project – Confidential ATC



**Submittal Date: 07/06/2017**

in the substructure mix and the addition of a magnesium based admixture to the superstructure mix design. These mixes were used successfully on the recently completed I-85 Bridge Repair Project with no evidence of shrinkage cracking.

### **5. Impacts:**

The implementation of this ATC will reduce schedule risk to the project and help ensure that the overpasses can be replaced within the stipulated timeframe. Additionally, accelerated curing of critical path bridge elements on the I-85 mainline will facilitate earlier opening of segments.

### **6. Cost Savings:**

If all concrete elements on bridges included on this project (base bid segments and variable segments) are cast in place, the use of Type III cement concrete mixes will increase the capital cost of construction by an estimated \$22,950.00 as shown below. Note that quantities are preliminary estimates.

|  |                    |
|--|--------------------|
| Substructure – 360 CY X \$15.00 additional cost per CY =     | \$5,400.00         |
| Superstructure – 1,170 CY X \$15.00 additional cost per CY = | <u>\$17,550.00</u> |
| Total Cost Increase  | \$22,950.00        |

### **7. Time Savings**

As an example of estimated time savings, implementation of this ATC will facilitate earlier opening of Segment 12 by a total of 18 days.

Since this bridge requires staged construction, the time savings in each stage will directly impact the critical path.

#### *Stage 1:*

2 Bents @ 2 Days per Bent = 4 Days  
1 Span @ 5 Days per Span = 5 Days

#### *Stage 2:*

2 Bents @ 2 Days per Bent = 4 Days  
1 Span @ 5 Days per Span = 5 Days

**Total = 18 Days**

### **8. Risks:**

Concrete mixes with the proposed Type III cement were recently used on the I-85 Bridge Repair Project to facilitate an accelerated completion date. There was no evidence of shrinkage cracking, therefore, **CWM** does not anticipate any additional risk to the GDOT due to the implementation of this ATC.

# **ATC CWM-001 – Type III Cement Concrete Mix Designs**



## **I-85 Widening Design Build Project – Confidential ATC**



**Submittal Date: 07/06/2017**

### **9. Quality:**

Implementation of this ATC will not result in any decrease in the quality of the completed project.

### **10. Costs:**

The implementation of this ATC will increase the capital cost of construction. There will be no other additional costs to GDOT or any third-parties.

### **11. Operations:**

Implementation of this ATC will not result in any changes to the operational requirements of the completed project.

### **12. Maintenance:**

Implementation of this ATC will not result in any changes to the maintenance requirements of the completed project.

### **13. Anticipated Life:**

Implementation of this ATC does not result in any change to the anticipated life of the project.

### **14. Right-of-Way:**

Implementation of this ATC does not result in any change to the required Right-of-Way for this project.

### **15. Past Use:**

Type III Concrete mix designs were recently used on the I-85 Bridge Repair Project.

### **16. Sale of Work Product:**

*CWM* is prepared to sell this ATC to GDOT as part of the Work Product in accordance with the terms of Section 3.8 of the ITP.

**ATC CWM-001 – Type III Cement Concrete Mix Designs**



**I-85 Widening Design Build Project – Confidential ATC**



**Submittal Date: 07/06/2017**

# ATTACHMENT A

## Form P



| <b>NEPA Study Impacts</b>               |  |                           |                        |  |
|---|--|---------------------------|------------------------|--|
| <b>No.</b>                              | <b>Area</b>                                      | <b>No Change Required</b> | <b>Change Required</b> | <b>If change required, provide a brief description of the proposed change.</b> |
| 1                                       | Purpose and Need                                 | X                         |                        |  |
| 2                                       | Project Termini                                  | X                         |                        |  |
| 3                                       | Property Acquisition                             | X                         |                        |  |
| 4                                       | Historic and Archeological                       | X                         |                        |  |
| 5                                       | Parklands and Other 4 (f) Resources              | X                         |                        |  |
| 6                                       | Air Quality                                      | X                         |                        |  |
| 7                                       | Noise  | X                         |                        |  |
| 8                                       | Hazardous Materials                              | X                         |                        |  |
| 9                                       | Water Resources/Water Quality                    | X                         |                        |  |
| 10                                      | Indirect and Cumulative Impacts                  | X                         |                        |  |
| 11                                      | Change in Selection of Preferred Alternative     | X                         |                        |  |
| 12                                      | Environmentally Sensitive Areas                  | X                         |                        |  |
| 13                                      | Environmental Justice                            | X                         |                        |  |
| 14                                      | Operations                                       | X                         |                        |  |
| 15                                      | Visual-Aesthetics                                | X                         |                        |  |
| 16                                      | Permits  | X                         |                        |  |
| 17                                      | Environmental Commitments (Green sheet)          | X                         |                        |  |
| <b>DB Contract – Volumes 2 and/or 3</b> |  | <b>No Change Required</b> | <b>Change Required</b> | <b>If change required, provide a brief description of the proposed change.</b> |
| 1                                       | Section 1- General                               | X                         |                        |  |
| 2                                       | Section 2- Project Management                    | X                         |                        |  |
| 3                                       | Section 3- Public Information and Communications | X                         |                        |  |
| 4                                       | Section 4- Environmental                         | X                         |                        |  |
| 5                                       | Section 6- Utilities                             | X                         |                        |  |
| 6                                       | Section 7- Right of Way                          | X                         |                        |  |

|   |  |                           |                        |  |
|---|--|---------------------------|------------------------|--|
| 7   | Section 8- Geotechnical                              | X                         |                        |  |
| 8   | Section 9- Surveying and Mapping                     | X                         |                        |  |
| 9   | Section 10- Grading                                  | X                         |                        |  |
| 10  | Section 11- Roadway                                  | X                         |                        |  |
| 11  | Section 12- Drainage                                 | X                         |                        |  |
| 12  | Section 13- Structures                               | X                         |                        |  |
| 13  | Section 14- Rail                                     | X                         |                        |  |
| 14  | Section 15- Landscape and Hardscape Enhancements     | X                         |                        |  |
| 15  | Section 16- Signing, Pavement Marking, Signalization | X                         |                        |  |
| 16  | Section 17- ITS                                      | X                         |                        |  |
| 17  | Section 18- Traffic Control                          | X                         |                        |  |
| 18  | Section 19- Maintenance                              | X                         |                        |  |
| 19  | Section 20- Bicycle and Pedestrian Facilities        | X                         |                        |  |
| 20  | Section 21- Tolling                                  | X                         |                        |  |
| 21  | Section 22- Operations                               | X                         |                        |  |
| 22  | Section 23-Submittals                                | X                         |                        |  |
| 23  | Any related Attachments                              | X                         |                        |  |
| <b>Design Exceptions and Variances</b>  |  |                           |                        |  |
| 1   | Does the ATC require any Design Exceptions?          | X                         | Yes                    | Description of each Design Exception or Variance                               |
| 2   | Does the ATC require any Design Variances?           | X                         |                        |  |
| <b>Volume 3 Manuals (list any Manuals which require changes including section number)</b> |  | <b>No Change Required</b> | <b>Change Required</b> | <b>If change required, provide a brief description of the proposed change.</b> |
|   | GDOT Std. Spec., 2013 - Section 500.2                |                           | X                      | Permit Type III Cement in Concrete Mix Designs                                 |
|   |  |                           |                        |  |
|   |  |                           |                        |  |
|   |  |                           |                        |  |
|   |  |                           |                        |  |

Submittal Date: 07/06/2017

# ATTACHMENT B

## Mix Designs Examples



# Example - Substructure - Type 3 Cement Mix Design

Thomas Concrete, Inc.  
2500\_Cumberland\_Pky\_S-200  
Atlanta, Georgia 30339

DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION  
PORTLAND CEMENT CONCRETE MIX DESIGNS

Date: \_\_\_\_\_

CONCRETE PLANT: 739

PLANT LOCATION: Buckhead

## MATERIALS

Cement: Holcim US, Inc. Holly Hill, SC  
Sand Primary: Vulcan Materials Co. Norcross, GA (10SM)  
Stone: Vulcan Materials Co. Norcross, GA  
Admixture: Sika Corporation ViscoCrete 2100 Type A or F Lyndhurst, NJ  
Admixture: Sika Corporation Plastiment Type D Lyndhurst, NJ.  
AEA: Sika Corporation "SIKA AEA-14"  
Fiber: Forta Corporation "Forta Ferro Fiber"

| CODE | TYPE | SPGR | %ABS | F/F |
|------|------|------|------|-----|
| 22   | 3    | 3.14 |      |     |
| 107F | 2    | 2.69 | 0.30 |     |
| 048  | 2    | 2.71 | 0.48 |     |
| 109  | 2    |      |      |     |
| 14   | 1    |      |      |     |

CHECK MIX USED

ONE CUBIC YARD PROPORTIONS (SSD)

| Class Concrete        | AA*       | AA*<br>BARR MACH | AA-1*     | 24HR<br>ACCEL | AA*       | 24 HR<br>ACCEL | For use on Project #<br>0015630 Fulton I-85 |
|-----------------------|-----------|------------------|-----------|---------------|-----------|----------------|---|
| Cement (lbs.)         | 635       | 635              | 675       | 752           | 635       | 752            |   |
| Sand -Primary (lbs.)  | 1144      | 1300             | 1134      | 1057          | 1190      | 1007           |   |
| Stone (lbs.)          | 1893      | 1825             | 1893      | 1893          | 1893      | 1843           |   |
| Water (gals.)         | 33.0      | 29.0             | 34.0      | 34.5          | 33.0      | 34.5           |   |
| Design Air (%)        | 5.0       | 5.0              | 4.0       | 4.0           | 4.0       | 4.0            |   |
| Accept. Air (LL-UL)   | 3.5 - 7.0 | 3.5 - 7.0        | 2.5 - 6.0 | 3.0 - 6.0     | 3.5 - 7.0 | 3.0 - 6.0      |   |
| Fiber (lbs.)          | 3.5       | -                | -         | -             | -         | 3.5            |   |
| Water Reducer (ozs.)  | **.*      | **.*             | **.*      | **.*          | **.*      | **.*           |   |
| Retarder (ozs.)       | **.*      | **.*             | **.*      | **.*          | **.*      | **.*           |   |
| Fine Agg Ratio (F/A)  | 0.38      | 0.42             | 0.38      | 0.36          | 0.39      | 0.36           |   |
| Stone Size            | 57        | 57               | 67        | 57            | 57        | 89             |   |
| Design Slump (ins.)   | 3.00*     | 1.00             | 3.00*     | 3.00*         | 3.00*     | 3.00*          | *Slump may be adjusted up                   |
| Accept. Slump (LL-UL) | 2.0 - 4.0 | 0.0 - 2.5        | 2.0 - 4.0 | 2.0 - 5.0     | 2.0 - 4.0 | 2.0 - 5.0      | to 7 1/2" w/HRWR*                           |
| Max. Water/Cu.Yd.     | 33.9      | 33.9             | 35.7      | 40.6          | 33.9      | 40.6           |   |

LL=Lower Limit; UL=Upper Limit

739-5.2

\* Retarder will be used when required by Specifications or placement conditions dictate it.

\*.\* Refer to temperature/dosage chart for retarder dosages.

The above concrete mix design proportions are for use on Department of Transportation projects. The ability of these proportions to produce concrete that meets specification requirements remains the responsibility of the Contractor. Jobsite acceptance of concrete produced with these proportions shall be based upon the Standard Specifications and SOP-10.

04/2017

Concrete Engineer  
or Certified Technician

# Example - Superstructure - Type 3 Cement Mix Design

THOMAS CONCRETE, INC.  
2500 CUMBERLAND PKY S-200  
Atlanta, Georgia 30339

DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION  
PORTLAND CEMENT CONCRETE MIX DESIGNS

Date: \_\_\_\_\_

CONCRETE PLANT: 739

PLANT LOCATION: BUCKHEAD

## MATERIALS

Cement: Holcim US, Inc. Holly Hill, SC  
Sand Primary: Vulcan Materials Co. Norcross, GA (10SM)  
Stone: Vulcan Materials Co. Norcross, GA  
Admixture: Sika Corporation ViscoCrete 2100 Type A or F Lyndhurst, NJ  
Admixture: Sika Corporation Plastiment Type D Lyndhurst, NJ.  
Admixture: Sika Corporation Sika Control NS Lyndhurst, NJ.  
AEA: Sika Corporation "SIKA AEA-14"

| CODE | TYPE | SPGR | %ABS | F/F |
|------|------|------|------|-----|
| 22   | 3    | 3.14 |      |     |
| 107F | 2    | 2.69 | 0.30 |     |
| 048  | 2    | 2.71 | 0.48 |     |
| 109  | 2    |      |      |     |
| 14   | 1    |      |      |     |

## CHECK MIX USED

## ONE CUBIC YARD PROPORTIONS (SSD)

| Class Concrete        | AA*       | FOR USE ON GDOT PROJECT #0015630 FULTON I-85 ONLY                        |  |  |  |  |  |  | 4-25-17 |
|-----------------------|-----------|--|--|--|--|--|--|--|---------|
| Cement (lbs.)         | 635       |  |  |  |  |  |  |  |         |
| Sand -Primary (lbs.)  | 1144      |  |  |  |  |  |  |  |         |
| Stone (lbs.)          | 1893      |  |  |  |  |  |  |  |         |
| Water (gals.)         | 33.0      |  |  |  |  |  |  |  |         |
| Design Air (%)        | 5.0       |  |  |  |  |  |  |  |         |
| Accept. Air (LL-UL)   | 3.5 - 7.0 |  |  |  |  |  |  |  |         |
| Water Reducer (ozs.)  | *-*       |  |  |  |  |  |  |  |         |
| Retarder (ozs.)       | *-*       |  |  |  |  |  |  |  |         |
| Fine Agg Ratio (F/A)  | 0.38      |  |  |  |  |  |  |  |         |
| Stone Size            | 57        |  |  |  |  |  |  |  |         |
| Design Slump (ins.)   | 3.00      | ***Slump may be adjusted up to 6 inches with High Range Water Reducer*** |  |  |  |  |  |  |         |
| Accept. Slump (LL-UL) | 2.0 - 4.0 |  |  |  |  |  |  |  |         |
| Max. Water/Cu.Yd.     | 33.9      |  |  |  |  |  |  |  |         |

LL=Lower Limit; UL=Upper Limit

739-1.5

\* Retarder will be used when required by Specifications or placement conditions dictate it.

\*-\* Refer to temperature/dosage chart for retarder dosages.

The above concrete mix design proportions are for use on Department of Transportation projects. The ability of these proportions to produce concrete that meets specification requirements remains the responsibility of the Contractor. Jobsite acceptance of concrete produced with these proportions shall be based upon the Standard Specifications and SOP-10.

04/2017

Concrete Engineer  
or Certified Technician

*AL Hudson*



July 25, 2017

C.W. Matthews Contracting Co., Inc.  
Attention: Robert W. Thompson, Jr.  
Lead Contractor Project Manager  
Post Office Drawer 970  
Marietta, Georgia 30061

RE: ATC CWM-003 – Revised Maximum PSC Beam Lengths

Dear Mr. Thompson:

The Georgia Department of Transportation has completed review of the above mentioned ATC and provides the following response:

- ☒ The ATC, as submitted, is acceptable for inclusion in the Proposal.
- ☐ The ATC is not acceptable for inclusion in the Proposal.
- ☐ The ATC is not acceptable in its present form, but may be acceptable upon the satisfaction, in GDOT's sole discretion, of certain identified conditions which must be met or clarifications or modifications that must be made, including, but not limited to, any required environmental reevaluation related to the ATC, which GDOT may condition upon a GDOT Re-evaluation Period.
- ☐ The submittal does not qualify as an ATC but may be included in Proposer's Proposal because it appears to be within the requirements of the RFP.
- ☐ The submittal does not qualify as an ATC and may not be included in the Proposal.

Please see the attached comments that were generated relative to the decision provided above.

Any resubmitted ATC shall be provided with the same three digit number with an alpha numeric letter starting with the letter "A" for the first resubmittal and "B" for a second submittal, etc., if necessary and address all comments for re-review.

The Georgia Department of Transportation appreciates the effort by your team to provide innovation and improve the overall success of the I-85 Express Lanes project.

Sincerely,

A handwritten signature in blue ink, consisting of several overlapping loops and a final horizontal stroke.

ATC Review Team Chair

Attachment: ATC Review Form

CC: Meg Pirkle, Chief Engineer – Memo only  
Joe Carpenter, Division Director of P3 – Memo only  
Darryl VanMeter, Asst. P3 Division Director / State Innovative Delivery Administrator  
General Files – Memo only

**CONFIDENTIAL**

**Attachment 1  
ATC Review Form**

**1. General comments:**

- a. Accepted; Revised beam lengths shall be limited to the concrete strength in the GDOT Bridge and Structures Manual. Revised beam lengths are subject to a review for beam shipping and the erection plan.

**2. Environmental comments:**

- a. N/A

**3. Utilities comments:**

- a. N/A

**4. Right of Way comments:**

- a. N/A

**5. Geotechnical comments:**

- a. N/A

**6. Roadway comments:**

- a. N/A

**7. Drainage/Erosion Control comments:**

- a. N/A

**8. Bridges/Structures comments:**

- a. This ATC proposes to utilize PSC girder lengths longer than the limits specified in the GDOT Bridge Design Manual if the contractor provides lateral stability analysis for those extended beams. Stability of all girders during fabrication, shipping, handling and erection are not the responsibility of GDOT.

**9. ITS comments:**

- a. N/A

**10. Signing and Marking comments:**

- a. N/A

**11. Other**

- a. N/A





**C. W. Matthews Contracting Co., Inc.**

**I-85 Widening Project**

**PI No. 110610; Gwinnett & Barrow Counties**

**ALTERNATIVE TECHNICAL CONCEPT CWM-003**

**CONFIDENTIAL ATC**

**Submitted: July 06, 2017**





**C. W. MATTHEWS CONTRACTING CO., INC.**

***Post Office Drawer 970***

***Marietta, Georgia 30061***

July 6, 2017

Mr. Chip Meeks  
Office of Innovative Delivery / P3 Administrator  
Georgia Department of Transportation  
One Georgia Center, 19<sup>th</sup> Floor  
600 West Peachtree Street, NW  
Atlanta, Georgia 30308

RE: I-85 Widening Project – Confidential ATC  
Alternative Technical Concept CWM-003 – Revised Maximum PSC Beam Lengths

Mr. Meeks,

In accordance with the requirements established in the Instructions to Proposers issued May 26, 2017 and amended June 30, 2017, C. W. Matthews Contracting Co., Inc. hereby submits and requests review of the above referenced Alternative Technical Concept.

As requested, two hard copies and two electronic copies in PDF format, which includes all technical information, are provided with this submittal. If additional information or clarifications are needed, please do not hesitate to contact me at your convenience.

Sincerely,

C. W. Matthews Contracting Co., Inc.

A handwritten signature in blue ink, reading 'Robert W. Thompson, Jr.', is written over the printed name.

Robert W Thompson, Jr.  
Lead Contractor Project Manager

## ATC CWM-003 – Revised Maximum PSC Beam Lengths

### I-85 Widening Design-Build Project – Confidential ATC

Submittal Date: 07/06/2017

#### **1. Description:**

*The C.W. Matthews Team (CWM)* proposes to modify the maximum PSC beam lengths in Section 3.4.2.8 of the GDOT - LRFD Bridge and Structures Design Manual so that longer PSC beams may be used in the design and construction of the bridge replacements.

#### **2. Usage:**

This ATC will be utilized in the design and construction of the bridge replacements.

#### **3. Contract Changes:**

To implement this Alternative Technical Concept, a deviation from the following section of the RFP would be required:

- *Volume 3 Programmatic Technical Provision for Design-Build Agreement dated June 30<sup>th</sup>, 2017 – Section 13, Structures, Page 13-1, General Requirements:*

The design of the Project shall be in accordance with Volume 3 Manuals (Technical Documents) and the requirements of the DB Documents.

The GDOT – LRFD Bridge and Structure Design Manual is referenced in Volume 3 Manuals as a Technical Document. Therefore, the requirements of this manual are applicable to the construction of the bridge on the project.

The current GDOT - LRFD Bridge and Structures Design Manual limits the maximum PSC beam lengths, per Section 3.4.2.8. This section states:

*The maximum beam lengths for the PSC beams are:*

- 50 feet for AASHTO Type I Mod. beams
- 65 feet for AASHTO Type II beams
- 85 feet for AASHTO Type III beams
- 125 feet for 54" Bulb Tee beams
- 135 feet for 63" Bulb Tee beams
- 150 feet for 72" and 74" Bulb Tee beams

We propose to modify Section 3.4.2.8 as follows:

*The maximum beam lengths for the PSC beams, **without (with) lateral stability analysis performed**, are:*

- 50 **(55)** feet for AASHTO Type I Mod. beams
- 65 **(75)** feet for AASHTO Type II beams
- 85 **(98)** feet for AASHTO Type III beams
- 125 **(140)** feet for 54" Bulb Tee beams
- 135 **(155)** feet for 63" Bulb Tee beams
- 150 **(170)** feet for 72" and 74" Bulb Tee beams

This deviation is indicated in Form P provided in Attachment A to this ATC.

## **ATC CWM-003 – Revised Maximum PSC Beam Lengths**

### **I-85 Widening Design-Build Project – Confidential ATC**

**Submittal Date: 07/06/2017**

#### **4. Justification:**

The proposed ATC will provide design and construction efficiencies by allowing longer maximum beam lengths to be used. Beam lengths in excess of the current GDOT Bridge Manual limits have been successfully designed and constructed in accordance with AASHTO LRFD specifications in the past. The current beam length limits are in place due to concerns of lateral stability of long PSC beams during handling, transportation, erection and construction. The release of the Precast/Prestressed Concrete Institute's (PCI) *Recommended Practice for Lateral Stability of Precast, Prestressed Concrete Bridge Girders, First Ed. 2016*, provides a logical and thorough approach to analyzing long PSC beams for lateral stability and designing to mitigate potential field issues. Any proposed PSC beams over the current GDOT Bridge manual limits will be evaluated for lateral stability by the CWM team. If needed, beams will be designed to withstand these out of plane stresses and deflections by use of better materials (higher  $f'_c$ ,  $f'_ci$ ), additional lateral bracing (flange, web, etc.), or other Contractor recommended means and methods.

#### **5. Impacts:**

The use of the proposed ATC would have the following potential impacts:

*Vehicular Traffic* - There would be no impacts to vehicular traffic through the implementation of this ATC.

*Environmental Impacts* - There would be no additional environmental impacts to vehicular traffic through the implementation of this ATC.

*Construction Schedule Impacts* – There would be some reduction in fabrication and construction timelines but no major impacts to the schedule.

*Community Impacts* - There would be no additional community impacts through the implementation of this ATC.

*Safety and Life-Cycle Costs* - There would be no additional safety or life-cycle impacts through implementation of this ATC. All replacement bridges will meet AASHTO LRFD requirements.

#### **6. Cost Savings:**

The use of the proposed ATC will potentially reduce the unit cost of the replacement bridge structures. The use of longer PSC beam lengths can reduce proposed superstructure depths (shallower beams) which reduces crossroad approach work on the overpass bridges. Increasing the allowable PSC beam lengths also allows standard AASHTO I-beams or Bulb Tee shapes to be used in bridge replacements which would otherwise require additional spans and substructures or use of alternative beam types (i.e. FIBs).

The most typical cost saving scenario occurs by utilizing BT-54" beams in lieu of BT 63" beams. An example of potential beam cost savings based on Jesse Cronin Rd. over I-85 is shown below:

| Item                              | Qty     | UOM | Rate         | Total                 |
|-----------------------------------|---------|-----|--------------|-----------------------|
| Del. BT 63                        | (1,454) | LF  | \$ 185.00    | \$ (268,990.00)       |
| Add BT 54                         | 1,454   | LF  | \$ 155.00    | \$ 225,370.00         |
| Reduce Approach Work              | -1      | LS  | \$ 25,000.00 | \$ (25,000.00)        |
| <i>Typical Savings per Bridge</i> |         |     |              | <i>\$ (68,620.00)</i> |

## **ATC CWM-003 – Revised Maximum PSC Beam Lengths**

### **I-85 Widening Design-Build Project – Confidential ATC**

**Submittal Date: 07/06/2017**

#### **7. Time Savings:**

The use of the proposed ATC will potentially reduce the amount of time required to fabricate and construct each bridge replacement by minimizing substructure locations, reducing the amount of approach roadway profile work, and/or eliminating MSE Wall abutments.

The most typical time savings scenario occurs by utilizing longer beams to eliminate bridge bents. Removing the duration for installation of foundations, footings, columns, and caps as well as the associated concrete cure times from the critical path will generate an estimated time savings of 26 calendar days per bent eliminated. This time savings will contribute to earlier segment opening on the project.

#### **8. Risks:**

The use of the proposed ATC has no inherent risks to the project. PSC beam lengths, as proposed, are allowed by AASHTO LRFD Specifications and the bridge designs will meet all AASHTO design requirements. The concern of lateral stability of long PSC beams will be mitigated by lateral stability analysis and/or Contractor means and methods to ensure the beams can handle stresses due to fabrication, handling, transportation, erection and construction.

*Post Construction* – No additional risks to the project.

*Operation* – No additional risks to the project.

*Maintenance* – No additional risks to the project.

#### **9. Quality:**

The use of the proposed ATC will have no impact on the quality of the finished project. The bridge designs will meet all AASHTO design requirements.

#### **10. Costs:**

The use of the proposed ATC will reduce the cost of the bridge replacements which ultimately benefits GDOT and SRTA. No additional costs to GDOT or SRTA are anticipated by implementation of this ATC.

#### **11. Operations:**

The use of the proposed ATC will not result in any change to the operations requirements of the project.

#### **12. Maintenance:**

The use of the proposed ATC does not require any changes in maintenance requirements.

#### **13. Anticipated Life:**

The use of the proposed ATC does not result in any change to the anticipated life of the project.

#### **14. Right-of-Way:**

The use of the proposed ATC does not impact the required Right-of-Way to be purchased for the construction of the project.

## **ATC CWM-003 – Revised Maximum PSC Beam Lengths**

### **I-85 Widening Design-Build Project – Confidential ATC**

**Submittal Date: 07/06/2017**

#### **15. Past Use:**

The use of the proposed ATC is allowed by AASHTO LRFD specifications and longer beam lengths than currently allowed have been successfully constructed in Georgia. The bridge carrying Sixes Road over I-575, built in 2010, had spans of 165 feet and 155 feet using PSC BT-74 beams. The I-85 Express Lanes Extension project also used 163 foot long BT-74 PSC beams for the bridge carrying I-85 Southbound over I-985 Northbound. The release of the PCI Recommended Practice for Lateral Stability of Precast, Prestressed Concrete Bridge Girders allows any beam to be analyzed for lateral stability concerns. Using these guidelines, proper design and/or construction methods can be employed to assure a safe and efficient beam design.

#### **16. Sale of Work Product:**

**CWM** is prepared to sell this ATC to GDOT in accordance with the terms of Section 3.8 of the ITP.



**ATC CWM-003 – Revised Maximum PSC Beam Lengths**

***I-85 Widening Design-Build Project – Confidential ATC***

**Submittal Date: 07/06/2017**

# ATTACHMENT A

## Form P



| <b>NEPA Study Impacts</b>               |  |                           |                        |  |
|---|--|---------------------------|------------------------|--|
| <b>No.</b>                              | <b>Area</b>                                      | <b>No Change Required</b> | <b>Change Required</b> | <b>If change required, provide a brief description of the proposed change.</b> |
| 1                                       | Purpose and Need                                 | X                         |                        |  |
| 2                                       | Project Termini                                  | X                         |                        |  |
| 3                                       | Property Acquisition                             | X                         |                        |  |
| 4                                       | Historic and Archeological                       | X                         |                        |  |
| 5                                       | Parklands and Other 4 (f) Resources              | X                         |                        |  |
| 6                                       | Air Quality                                      | X                         |                        |  |
| 7                                       | Noise  | X                         |                        |  |
| 8                                       | Hazardous Materials                              | X                         |                        |  |
| 9                                       | Water Resources/Water Quality                    | X                         |                        |  |
| 10                                      | Indirect and Cumulative Impacts                  | X                         |                        |  |
| 11                                      | Change in Selection of Preferred Alternative     | X                         |                        |  |
| 12                                      | Environmentally Sensitive Areas                  | X                         |                        |  |
| 13                                      | Environmental Justice                            | X                         |                        |  |
| 14                                      | Operations                                       | X                         |                        |  |
| 15                                      | Visual-Aesthetics                                | X                         |                        |  |
| 16                                      | Permits  | X                         |                        |  |
| 17                                      | Environmental Commitments (Green sheet)          | X                         |                        |  |
| <b>DB Contract – Volumes 2 and/or 3</b> |  | <b>No Change Required</b> | <b>Change Required</b> | <b>If change required, provide a brief description of the proposed change.</b> |
| 1                                       | Section 1- General                               | X                         |                        |  |
| 2                                       | Section 2- Project Management                    | X                         |                        |  |
| 3                                       | Section 3- Public Information and Communications | X                         |                        |  |
| 4                                       | Section 4- Environmental                         | X                         |                        |  |
| 5                                       | Section 6- Utilities                             | X                         |                        |  |
| 6                                       | Section 7- Right of Way                          | X                         |                        |  |

|   |  |                           |                        |  |
|---|--|---------------------------|------------------------|--|
| 7   | Section 8- Geotechnical                              | X                         |                        |  |
| 8   | Section 9- Surveying and Mapping                     | X                         |                        |  |
| 9   | Section 10- Grading                                  | X                         |                        |  |
| 10  | Section 11- Roadway                                  | X                         |                        |  |
| 11  | Section 12- Drainage                                 | X                         |                        |  |
| 12  | Section 13- Structures                               | X                         |                        |  |
| 13  | Section 14- Rail                                     | X                         |                        |  |
| 14  | Section 15- Landscape and Hardscape Enhancements     | X                         |                        |  |
| 15  | Section 16- Signing, Pavement Marking, Signalization | X                         |                        |  |
| 16  | Section 17- ITS                                      | X                         |                        |  |
| 17  | Section 18- Traffic Control                          | X                         |                        |  |
| 18  | Section 19- Maintenance                              | X                         |                        |  |
| 19  | Section 20- Bicycle and Pedestrian Facilities        | X                         |                        |  |
| 20  | Section 21- Tolling                                  | X                         |                        |  |
| 21  | Section 22- Operations                               | X                         |                        |  |
| 22  | Section 23-Submittals                                | X                         |                        |  |
| 23  | Any related Attachments                              | X                         |                        |  |
| <b>Design Exceptions and Variances</b>  |  |                           |                        |  |
| 1   | Does the ATC require any Design Exceptions?          | X                         |                        |  |
| 2   | Does the ATC require any Design Variances?           | X                         |                        |  |
| <b>Volume 3 Manuals (list any Manuals which require changes including section number)</b> |  | <b>No Change Required</b> | <b>Change Required</b> | <b>If change required, provide a brief description of the proposed change.</b> |
|   | GDOT Bridge Manual                                   |                           | X                      | Revision to Section 3.4.2.8 would be required                                  |
|   |  |                           |                        |  |
|   |  |                           |                        |  |
|   |  |                           |                        |  |
|   |  |                           |                        |  |



July 25, 2017

C.W. Matthews Contracting Co., Inc.  
Attention: Robert W. Thompson, Jr.  
Lead Contractor Project Manager  
Post Office Drawer 970  
Marietta, Georgia 30061

RE: ATC CWM-005 – Permit Use of Florida I-Beams (FIBs)

Dear Mr. Thompson:

The Georgia Department of Transportation has completed review of the above mentioned ATC and provides the following response:

      X       The ATC, as submitted, is acceptable for inclusion in the Proposal.

                     The ATC is not acceptable for inclusion in the Proposal.

                     The ATC is not acceptable in its present form, but may be acceptable upon the satisfaction, in GDOT's sole discretion, of certain identified conditions which must be met or clarifications or modifications that must be made, including, but not limited to, any required environmental reevaluation related to the ATC, which GDOT may condition upon a GDOT Re-evaluation Period.

                     The submittal does not qualify as an ATC but may be included in Proposer's Proposal because it appears to be within the requirements of the RFP.

                     The submittal does not qualify as an ATC and may not be included in the Proposal.

Please see the attached comments that were generated relative to the decision provided above.

Any resubmitted ATC shall be provided with the same three digit number with an alpha numeric letter starting with the letter "A" for the first resubmittal and "B" for a second submittal, etc., if necessary and address all comments for re-review.

The Georgia Department of Transportation appreciates the effort by your team to provide innovation and improve the overall success of the I-85 Express Lanes project.

Sincerely,

A handwritten signature in blue ink, consisting of several overlapping loops and a trailing line.

ATC Review Team Chair

Attachment: ATC Review Form

CC: Meg Pirkle, Chief Engineer – Memo only  
Joe Carpenter, Division Director of P3 – Memo only  
Darryl VanMeter, Asst. P3 Division Director / State Innovative Delivery Administrator  
General Files – Memo only

**CONFIDENTIAL**

**Attachment 1  
ATC Review Form**

- 1. General comments:**
  - a. N/A
- 2. Environmental comments:**
  - a. N/A
- 3. Utilities comments:**
  - a. N/A
- 4. Right of Way comments:**
  - a. N/A
- 5. Geotechnical comments:**
  - a. N/A
- 6. Roadway comments:**
  - a. N/A
- 7. Drainage/Erosion Control comments:**
  - a. N/A
- 8. Bridges/Structures comments:**
  - a. Accepted; Contractor to follow Florida recommendations for the design and detailing of the beams.
- 9. ITS comments:**
  - a. N/A
- 10. Signing and Marking comments:**
  - a. N/A
- 11. Other**
  - a. N/A





**C. W. Matthews Contracting Co., Inc.**

**I-85 Widening Project**

**PI No. 110610; Gwinnett & Barrow Counties**

**ALTERNATIVE TECHNICAL CONCEPT CWM-005**

**CONFIDENTIAL ATC**

**Submitted: July 06, 2017**





***C. W. MATTHEWS CONTRACTING CO., INC.***

***Post Office Drawer 970***

***Marietta, Georgia 30061***

July 6, 2017

Mr. Chip Meeks  
Office of Innovative Delivery / P3 Administrator  
Georgia Department of Transportation  
One Georgia Center, 19<sup>th</sup> Floor  
600 West Peachtree Street, NW  
Atlanta, Georgia 30308

RE: I-85 Widening Project – Confidential ATC  
Alternative Technical Concept CWM-005 – Permit Use of Florida I Beams (FIBs)

Mr. Meeks,

In accordance with the requirements established in the Instructions to Proposers issued May 26, 2017 and amended June 30, 2017, C. W. Matthews Contracting Co., Inc. hereby submits and requests review of the above referenced Alternative Technical Concept.

As requested, two hard copies and two electronic copies in PDF format, which includes all technical information, are provided with this submittal. If additional information or clarifications are needed, please do not hesitate to contact me at your convenience.

Sincerely,  
C. W. Matthews Contracting Co., Inc.

A handwritten signature in blue ink, reading 'Robert W. Thompson, Jr.', is written over the printed name.

Robert W. Thompson, Jr.  
Lead Contractor Project Manager

## **ATC CWM-005 – Permit Use of Florida I Beams (FIB)**

### **I-85 Widening Design-Build Project – Confidential ATC**

**Submittal Date: 07/06/2017**

#### **1. Description:**

*The C.W. Matthews Team (CWM)* proposes to utilize Florida I-beam (FIB) shapes, developed by the Florida Department of Transportation (FDOT), for the bridge replacements on this project.

#### **2. Usage:**

This ATC will be utilized in design and construction of the replacement bridges where the reduction in superstructure depth can substantially reduce the required approach tie-in work.

#### **3. Contract Changes:**

The use of FIB PSC Beam spans deviates from the current GDOT Bridge and Structures Design Manual, which only refers to AASHTO I and Bulb Tee Beam shapes in Section 3.4. We propose to revise Section 3.4 of the Bridge Manual to allow the use of FDOT's FIB shapes. This deviation is indicated in Form P provided in Attachment A to this ATC.

#### **4. Justification:**

Implementation of this ATC will provide design and construction efficiencies and cost savings. The FIB shape was developed in 2009 through a collaboration of FDOT, academic research, and industry expertise. The FIB shape is designed to have the same top and bottom flange dimensions, with the only variance in the beam types coming from the increased web height. The FDOT has standard design drawings for the FIB 36, 45, 54, 63, 72, 78, 84, and 96 beams. A sample of the FIB 36 drawings and the section properties for all the beams can be found in Attachment B. The FIB shape was designed for optimum performance. FIBs can span longer and can save superstructure depth when compared to standard AASHTO I and Bulb Tee shapes. FIBs have bigger flanges than AASHTO beams, giving them increased stability and lateral stiffness. The FIBs can be used to eliminate beam lines and to reduce superstructure depth, which can save on roadway approach work in various situations.

#### **5. Impacts:**

The use of the proposed ATC would have the following potential impacts:

*Vehicular Traffic* - There would be no impacts to vehicular traffic through the implementation of this ATC.

*Environmental Impacts* - There would be no additional environmental impacts to vehicular traffic through the implementation of this ATC.

*Construction Schedule Impacts* – There would be some reduction in construction timelines but no major impacts to the schedule.

*Community Impacts* - There would be no additional community impacts to through the implementation of this ATC.

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*Safety and Life-Cycle Costs* - There would be no additional safety or life-cycle impacts through implementation of this ATC. All replacement bridges will meet AASHTO LRFD requirements.

#### **6. Cost Savings:**

The use of this proposed ATC could potentially reduce the overall cost of the bridge replacements. The use of the FIB shapes may reduce the quantity of beams needed for the project by eliminating beam lines. This optimization also minimizes pile driving operations at end bents, where it is standard to place one pile under each beam. More importantly, the FIB shapes can reduce superstructure depth when compared to standard AASHTO beam designs, which can minimize roadway approach work in fill situations or in situations where vertical geometry is a concern. A conservative example (does not reduce the quantity of beams) of the potential cost savings per bridge that might be realized by the implementation of this ATC is provided in the table below.

| Item                       | Qty   | UOM | Rate      | Total                 |
|----------------------------|-------|-----|-----------|-----------------------|
| Delete BT 54               | -2200 | LF  | \$ 160.00 | \$ (352,000.00)       |
| Add FIB 36                 | 2200  | LF  | \$ 220.00 | \$ 484,000.00         |
| Reduce Approach Embankment | -1200 | CY  | \$ 30.00  | \$ (36,000.00)        |
| Reduce Approach Paving     | -900  | TON | \$ 80.00  | \$ (72,000.00)        |
| Reduce Type 2 Side Barrier | -200  | LF  | \$ 550.00 | \$ (110,000.00)       |
| Reduce Striping            | -1000 | LF  | \$ 1.00   | \$ (1,000.00)         |
|                            |       |     |           | <b>\$ (87,000.00)</b> |

While the overall cost to the project may not be reduced due to the variable scope nature of the procurement, the use of the proposed ATC will provide the opportunity to complete additional segments of work under the proposed \$115,000,000 Cap and can potentially result in earlier completion of portions of the work while staying within the specified Maximum Annual Cumulative Payment Cap.

#### **7. Time Savings:**

The use of the proposed ATC will reduce the amount of time required to construct each bridge replacement. Based on *CWM's* preliminary analysis of the construction durations for the bridge replacements, it is anticipated that this ATC would save time however, at this point it is not possible to accurately project the time savings since intermediate early open durations and final completion dates will be dependent on the final segmentation of the project and how seasonal limitations may affect certain operations.

## **ATC CWM-005 – Permit Use of Florida I Beams (FIB)**

### **I-85 Widening Design-Build Project – Confidential ATC**

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#### **8. Risks:**

The use of the proposed ATC has no inherent risks to the project. FIB beam designs will meet AASHTO LRFD Specifications.

*Post Construction* – No additional risks to the project.

*Operation* – No additional risks to the project.

*Maintenance* – No additional risks to the project.

#### **9. Quality:**

The use of the proposed ATC will have no impact on the quality of the finished project. The bridge designs will meet all AASHTO design requirements.

#### **10. Costs:**

The use of the proposed ATC will reduce the cost of the bridge replacements which ultimately benefits GDOT and SRTA. No additional costs to GDOT or SRTA are anticipated by implementation of this ATC.

#### **11. Operations:**

The use of the proposed ATC will not result in any change to the operations requirements of the project.

#### **12. Maintenance:**

The use of the proposed ATC does not require any changes in maintenance requirements.

#### **13. Anticipated Life:**

The use of the proposed ATC does not result in any change to the anticipated life of the project.

#### **14. Right-of-Way:**

The use of the proposed ATC does not impact the required Right-of-Way to be purchased for the construction of the project.

#### **15. Past Use:**

The use of the proposed ATC is allowed by AASHTO LRFD specifications, has been used by the FDOT since 2009 with great success, and has been permitted by GDOT on other projects. A similar ATC was also approved for use in the I-285 & SR 400 Reconstruction project (AWH-005A). FIB 78 inch beams were used on the I-85 Express Lanes Extension project for the bridge over I-985 Northbound.

## **ATC CWM-005 – Permit Use of Florida I Beams (FIB)**

### ***I-85 Widening Design-Build Project – Confidential ATC***

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#### **16. Sale of Work Product:**

**CWM** is prepared to sell this ATC to GDOT in accordance with the terms of Section 3.8 of the ITP.

**ATC CWM-005 – Permit Use of Florida I Beams (FIB)**

***I-85 Widening Design-Build Project – Confidential ATC***

**Submittal Date: 07/06/2017**

# ATTACHMENT A

## Form P

| <b>NEPA Study Impacts</b>               |  |                           |                        |  |
|---|--|---------------------------|------------------------|--|
| <b>No.</b>                              | <b>Area</b>                                      | <b>No Change Required</b> | <b>Change Required</b> | <b>If change required, provide a brief description of the proposed change.</b> |
| 1                                       | Purpose and Need                                 | X                         |                        |  |
| 2                                       | Project Termini                                  | X                         |                        |  |
| 3                                       | Property Acquisition                             | X                         |                        |  |
| 4                                       | Historic and Archeological                       | X                         |                        |  |
| 5                                       | Parklands and Other 4 (f) Resources              | X                         |                        |  |
| 6                                       | Air Quality                                      | X                         |                        |  |
| 7                                       | Noise  | X                         |                        |  |
| 8                                       | Hazardous Materials                              | X                         |                        |  |
| 9                                       | Water Resources/Water Quality                    | X                         |                        |  |
| 10                                      | Indirect and Cumulative Impacts                  | X                         |                        |  |
| 11                                      | Change in Selection of Preferred Alternative     | X                         |                        |  |
| 12                                      | Environmentally Sensitive Areas                  | X                         |                        |  |
| 13                                      | Environmental Justice                            | X                         |                        |  |
| 14                                      | Operations                                       | X                         |                        |  |
| 15                                      | Visual-Aesthetics                                | X                         |                        |  |
| 16                                      | Permits  | X                         |                        |  |
| 17                                      | Environmental Commitments (Green sheet)          | X                         |                        |  |
| <b>DB Contract – Volumes 2 and/or 3</b> |  | <b>No Change Required</b> | <b>Change Required</b> | <b>If change required, provide a brief description of the proposed change.</b> |
| 1                                       | Section 1- General                               | X                         |                        |  |
| 2                                       | Section 2- Project Management                    | X                         |                        |  |
| 3                                       | Section 3- Public Information and Communications | X                         |                        |  |
| 4                                       | Section 4- Environmental                         | X                         |                        |  |
| 5                                       | Section 6- Utilities                             | X                         |                        |  |
| 6                                       | Section 7- Right of Way                          | X                         |                        |  |

|   |  |                           |                        |  |  |
|---|--|---------------------------|------------------------|--|--|
| 7   | Section 8- Geotechnical                              | X                         |                        |  |  |
| 8   | Section 9- Surveying and Mapping                     | X                         |                        |  |  |
| 9   | Section 10- Grading                                  | X                         |                        |  |  |
| 10  | Section 11- Roadway                                  | X                         |                        |  |  |
| 11  | Section 12- Drainage                                 | X                         |                        |  |  |
| 12  | Section 13- Structures                               | X                         |                        |  |  |
| 13  | Section 14- Rail                                     | X                         |                        |  |  |
| 14  | Section 15- Landscape and Hardscape Enhancements     | X                         |                        |  |  |
| 15  | Section 16- Signing, Pavement Marking, Signalization | X                         |                        |  |  |
| 16  | Section 17- ITS                                      | X                         |                        |  |  |
| 17  | Section 18- Traffic Control                          | X                         |                        |  |  |
| 18  | Section 19- Maintenance                              | X                         |                        |  |  |
| 19  | Section 20- Bicycle and Pedestrian Facilities        | X                         |                        |  |  |
| 20  | Section 21- Tolling                                  | X                         |                        |  |  |
| 21  | Section 22- Operations                               | X                         |                        |  |  |
| 22  | Section 23-Submittals                                | X                         |                        |  |  |
| 23  | Any related Attachments                              | X                         |                        |  |  |
| <b>Design Exceptions and Variances</b>  |  | <b>No</b>                 | <b>Yes</b>             | <b>Description of each Design Exception or Variance</b>                        |  |
| 1   | Does the ATC require any Design Exceptions?          | X                         |                        |  |  |
| 2   | Does the ATC require any Design Variances?           | X                         |                        |  |  |
| <b>Volume 3 Manuals (list any Manuals which require changes including section number)</b> |  | <b>No Change Required</b> | <b>Change Required</b> | <b>If change required, provide a brief description of the proposed change.</b> |  |
|   | GDOT Bridge Manual                                   |                           | X                      | Revision to Section 3.4 would be required to allow FIBs.                       |  |
|   |  |                           |                        |  |  |
|   |  |                           |                        |  |  |
|   |  |                           |                        |  |  |
|   |  |                           |                        |  |  |

**ATC CWM-005 – Permit Use of Florida I Beams (FIB)**

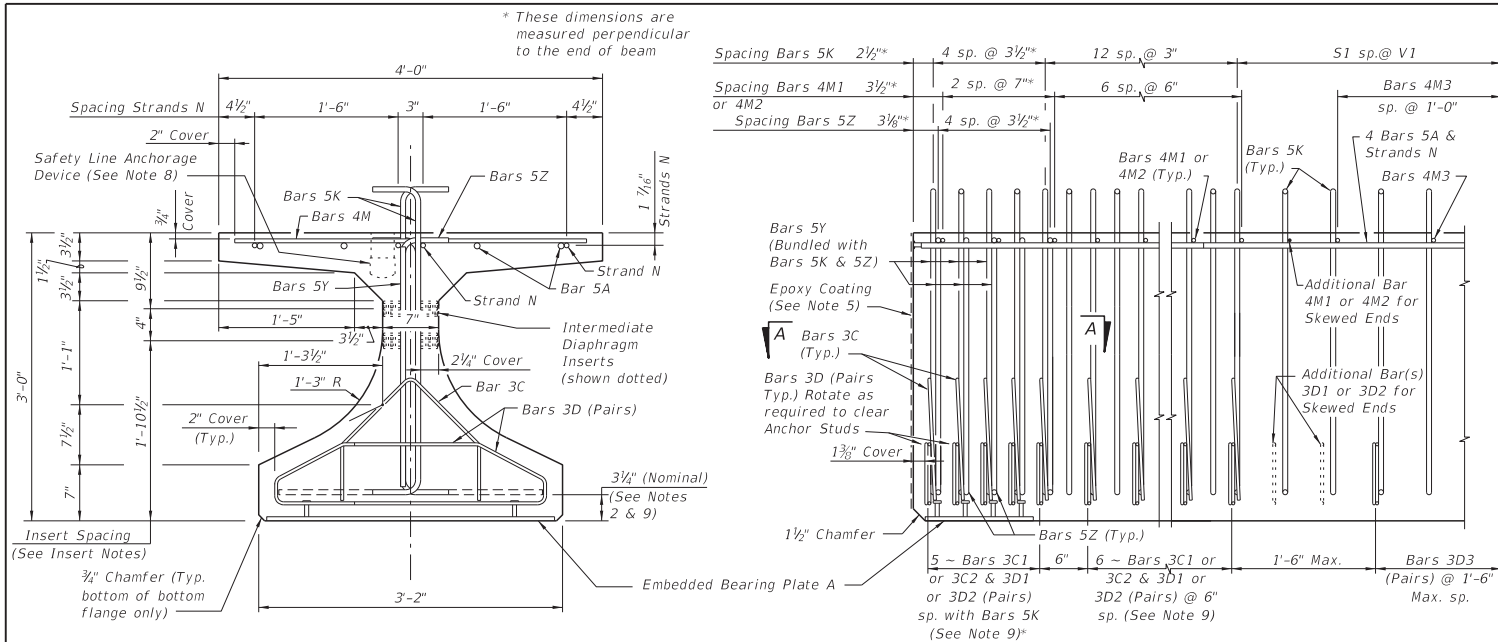
***I-85 Widening Design-Build Project – Confidential ATC***

**Submittal Date: 07/06/2017**

**ATTACHMENT B**

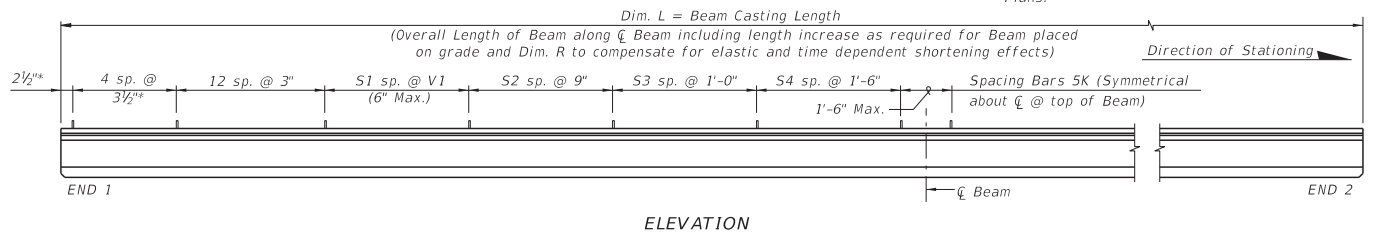
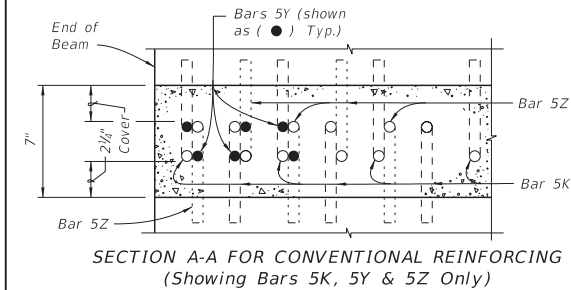
***FDOT Standard Drawings and  
FIB Section Properties***





END VIEW

ELEVATION AT END OF BEAM  
(Flanges Not Shown For Clarity)  
(End 1 Shown, End 2 Similar)

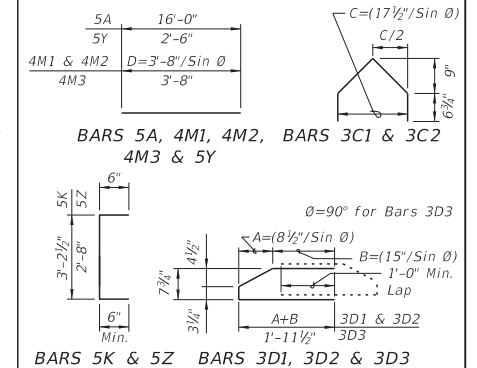


# CONVENTIONAL REINFORCING BAR BENDING DETAILS

## BILL OF REINFORCING STEEL

| MARK | NOTE NUMBERS   | SIZE                    | NUMBER REQUIRED | LENGTH (NOTE 1) |
|------|----------------|-------------------------|-----------------|-----------------|
| A    | —              | 5                       | 8               | 16'-0"          |
| C1   | 9, 10 & 11     | 3                       | 11 (End 1)      | Varies          |
| C2   | 9, 10 & 11     | 3                       | 11 (End 2)      | Varies          |
| D1   | 9, 10, 11 & 14 | 3                       | 22 (End 1)      | Varies          |
| D2   | 9, 10, 11 & 14 | 3                       | 22 (End 2)      | Varies          |
| D3   | 9 & 14         | 3                       | See Table       | 4'-3"           |
| K    | 2, 9, 11 & 13  | 5                       | See Table       | 4'-2"           |
| M1   | 9 & 10         | 4                       | 9 (End 1)       | Varies          |
| M2   | 9 & 10         | 4                       | 9 (End 2)       | Varies          |
| M3   | 9              | 4                       | See Table       | 3'-8"           |
| N    | 3 & 4          | 3/8" $\emptyset$ Strand | 4               | Dim. L          |
| Y    | 9 & 11         | 5                       | 12              | 2'-6"           |
| Z    | 2, 9, 11 & 13  | 5                       | 10              | 3'-8"           |

## BENDING DIAGRAMS (See Note 1)

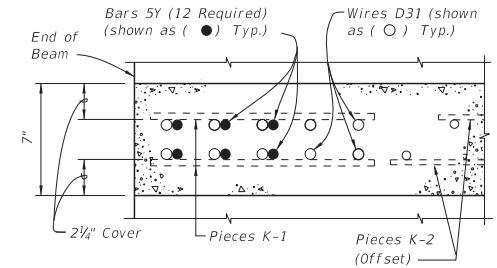
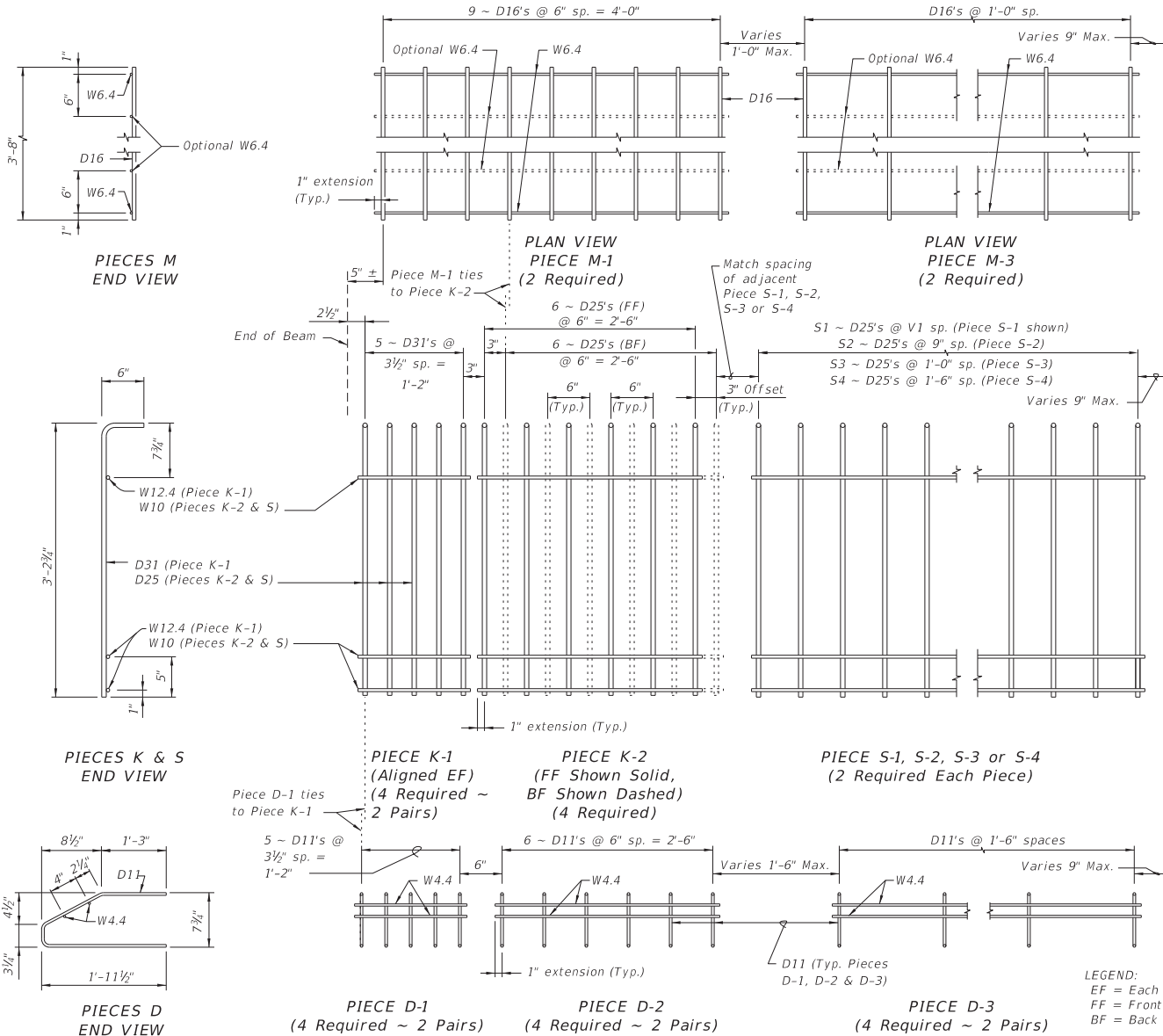


- NOTES:
- Work this Index with Index No. 20010 - Typical Florida-I Beam Details and Notes and the Florida-I Beam - Table of Beam Variables in Structures Plans.
  - For referenced notes, see Index No. 20010.
  - For Dimensions A, B, C, D, L, R & V1 and number of spaces S1 thru S4, see Florida-I Beam - Table of Beam Variables in Structures Plans.

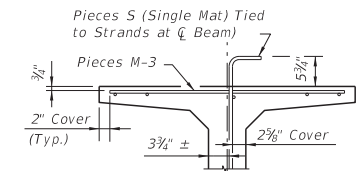
ATC CWM-005 - ATTACHMENT B

|                           |              |  |                                      |                    |                     |
|---------------------------|--------------|--|--------------------------------------|--------------------|---------------------|
| LAST REVISION<br>07/01/12 | DESCRIPTION: | FDOT<br>FY 2016-17<br>DESIGN STANDARDS | FLORIDA-I 36 BEAM - STANDARD DETAILS | INDEX NO.<br>20036 | SHEET NO.<br>1 of 2 |
|---------------------------|--------------|--|--------------------------------------|--------------------|---------------------|

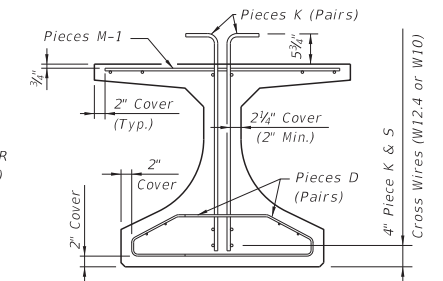
# ALTERNATE REINFORCING STEEL (WELDED WIRE REINFORCEMENT) DETAILS



**SECTION A-A  
FOR WELDED WIRE REINFORCEMENT**



**PARTIAL SECTION AT CENTER BEAM**



**PARTIAL BEAM END VIEW  
(Conventional Reinforcing Bars A, C, Y and Strands not Shown for Clarity)**

- NOTES:**
- See Sheet 1 for placement details & Table of Beam Variables in Structures Plans for variables S1, S2, S3, S4 & V1.
  - Place Conventional Reinforcement Bars 5A & 3C as shown on Sheet 1. Place additional Bars 5Y as shown in Section A-A for Welded Wire Reinforcement. Bars 5Z will not be used with the WWR Option.
  - Pieces may be fabricated in multiple length sections.
  - For beams with skewed end conditions, Pieces D-1, D-2 & M-1 shall not be used; Conventional Reinforcement Bars D1, D2, C1, C2, M1 & M2 shall be used. See Index No. 20010 Skew Details and Note 9 for placement details. Shift Pieces K & Bars 5Y to accommodate skewed end conditions and align with Bars C and D.

ATC CWM-005 - ATTACHMENT B

12/17/2015 11:01:11 PM

| LAST REVISION | DESCRIPTION: | FY 2016-17 DESIGN STANDARDS | FLORIDA-I 36 BEAM - STANDARD DETAILS | INDEX NO. | SHEET NO. |
|---------------|--------------|-----------------------------|--------------------------------------|-----------|-----------|
| 07/01/10      |              | FDOT                        |                                      | 20036     | 2 of 2    |

## **Index 20010 Series Prestressed Florida-I Beams (Rev. 01/16)**

### **Design Criteria**

***AASHTO LRFD Bridge Design Specifications; Structures Detailing Manual (SDM); Structures Design Guidelines (SDG)***

### **Design Assumptions and Limitations**

Index 20010 is the lead standard for the Prestressed Florida-I Beam standard series which includes Indexes 20010 through 20096. Use this standard with Indexes 20005, 20036, 20045, 20054, 20063, 20072, 20078, 20084, 20096, 20199, 20510, and 20511 or 20512.

These standards must be supplemented with project specific information including a Table of Beam Variables, Strand Pattern Details and a Strand Debonding Legend which must be completed and included in the Structures Plans. These standards and the supplemental project specific information that is included in the plans provide sufficient information to permit beam fabrication without the submittal of shop drawings.

Data tables for associated Indexes 20005, 20199, 20510, and 20511 or 20512 must also be completed and included in the plans.

The use of End Diaphragms is not preferred on simple span, pretensioned, Florida-I Beam structures. In lieu of End Diaphragms, the preferred detail is a Thickened Slab End at all locations of slab discontinuity. Where End Diaphragms are required by design or for widening projects, partial depth diaphragms are preferred. See **SDM** Chapter 15 for suggested details.

Except for widening projects where special details may be required, squared beam ends are preferred on all Florida-I Beam structures.

The prestressed beams in these Standard Drawings are generally assumed to act as simple spans under both Dead Load and Live Load even where the deck is detailed to be continuous across the intermediate supports or back-to-back diaphragms are present. For detailing purposes, Prestressed Florida-I Beams are assumed to be erected plumb.

When the total initial tensioning force of the fully bonded strands required by design exceeds the values shown below, shield additional strands at the end of the beam when possible. The end reinforcement may only be redesigned to accommodate an increased vertical splitting force when approved by the State Structures Design Office. If approval is granted, Index 20010 and the appropriate Standard Detail Drawings must then be modified for inclusion in the contract documents and signed and sealed by the EOR.

To limit vertical splitting forces in the webs of beams, the maximum prestress force at the beam ends from fully bonded strands must be limited to the following:

| Index No. | Beam Type    | Max. Bonded Prestress Force | Last Revision Date |
|-----------|--------------|-----------------------------|--------------------|
| 20036     | Florida-I 36 | 1450 Kips                   | 07/01/09           |
| 20045     | Florida-I 45 | 1670 Kips                   | 07/01/09           |
| 20054     | Florida-I 54 | 1740 Kips                   | 07/01/09           |
| 20063     | Florida-I 63 | 1740 Kips                   | 07/01/09           |
| 20072     | Florida-I 72 | 1980 Kips                   | 07/01/09           |
| 20078     | Florida-I 78 | 2230 Kips                   | 07/01/09           |
| 20084     | Florida-I 84 | 2375 Kips                   | 07/01/10           |
| 20096     | Florida-I 96 | 2375 Kips                   | 07/01/10           |

Do not apply losses when calculating the Bonded Prestress Force.

Embedded Bearing Plates are required for all beams. If the beam grade exceeds 2%, provide Beveled Bearing Plates at each end of the beam as shown in Index 20511 or Index 20512.

Prestressed Beam Suppliers typically utilize side forms for casting which are not easily or economically modified. If modifications to beam cross-sections are required for any reason other than haunched sections, maintain profile dimensions of the form. For example: To thicken the web, increase the spacing between side forms. To increase the beam height, increase the thickness of the top flange. In any case, do not reduce the standard thickness of either the top or bottom flange.

See additional instructions in the **SDG**.

## Plan Content Requirements

In the Structures Plans:

Complete the following "FLORIDA-I BEAM - TABLE OF BEAM VARIABLES" and include it in the plans. Use additional sheets when the actual number of beams or strand patterns exceeds the capacity of a single plan sheet using the standard table. Supplemental details and modifications are permitted if special conditions require dimensions, details or notes. However, the "FLORIDA-I BEAM - TABLE OF BEAM VARIABLES" itself should not be modified. See [Introduction I.3](#) for more information regarding use of Data Tables.

Report elastic and time dependent shortening effects (DIM R) at mid-height of the beam @ 120 days. The average of the calculated values for the top and bottom of the beam may be used.

Report DIM P for beams placed on grade if the calculated value is equal or greater than 1" using 1/8" increments. Also consider the effect of beam end rotations for Florida-I 84 and 96 beams, if significant. Different "P" dimensions at each end may be necessary for accommodating these effects, which will require modifying the "FLORIDA-I BEAM - TABLE OF BEAM VARIABLES" using suggested DIM P1 and DIM P2.

Show strands in the outermost positions of the two lowest rows to support Bars D.

Round Angle  $\Phi$  up to the nearest degree.

Specify shear stirrup spacing V1 for Bars 5K to the nearest inch.

Prepare a Framing Plan for bridges meeting the criteria stated in the **SDM**.

When diaphragms are required by design, show them on the Framing Plan. Tabulate insert locations with respect to the beam ends and beam faces. Include length adjustments for beams placed on grade and for elastic and time dependent shortening effects. See **SDM** Chapter 15 for preferred diaphragm and reinforcing details.

For bridge widenings where beam ends are encased in full height diaphragms and the diaphragms are to be extended, modify Index 20010 and the appropriate Index associated with the specific beam height and include them in the plans as follows:

- Modify the Design Standards in accordance with Method 1, Method 2 or Method 3 as defined in the [Terms Of Use](#) for the Borderless DGNs provided in the Design Standards eBooklet.
- Remove all notes, call-outs and details regarding cutting the strands and coating the ends of the beams with epoxy.
- Insert all notes, call-outs and details to ensure proper placement of Bars 4L as shown in the 2010 Design Standards Interim Dated 01/01/10 (Effective Date: July 1, 2010). Detail the number of bars, bar locations and bar bending diagrams

TYPE ①    \_\_ STRANDS

STRAND DESCRIPTION: Use \_\_\_\_ Diameter, Grade 270 Low-Relaxation Carbon Steel Strands stressed at \_\_\_\_ kips each. Area per strand equals \_\_\_\_ sq. in.

STRAND PATTERNS

\*\*\* See the Bearing Plate Data Table for details.

NOTE: On beams with skewed ends, the debonded length shall be measured along the shielded strand.

## Payment

| Item number | Item description                  | Unit Measure |
|-------------|-----------------------------------|--------------|
| 450-2-AAA   | Prestressed Beams: Florida-I Beam | LF           |

## Example Problem

The following example shows the data required for completion of a Florida-I Beam Table of Beam Variables. The example assumes a three span bridge with Florida-I 45 Beams designed for the following conditions:

Live Load: HL-93

No intermediate Diaphragms

Stay-in-Place Metal Forms:

Allowance of 20 PSF non-composite dead load over the projected plan area of the forms (this includes the unit weight of metal forms and the concrete required to fill the form flutes).

Environment (Superstructure): Moderately Aggressive

Bridge Characteristics:

Length: 276 ft.

Width: 51'-1" (out-to-out)

Clear Roadway: 48 ft.

Superstructure:

Three simple spans of prestressed concrete beams with 8-inch composite deck slab (plus 1/2" sacrificial deck thickness)

Span: 87'-0", 102'-0", 87'-0"

Sidewalk: None

Horizontal Alignment: Straight

Vertical Alignment: 0.00% Grade

Skew Angle: 15 degrees (Right)

Beam Design:

Beam: Florida-I 45 Beam

Spacing:

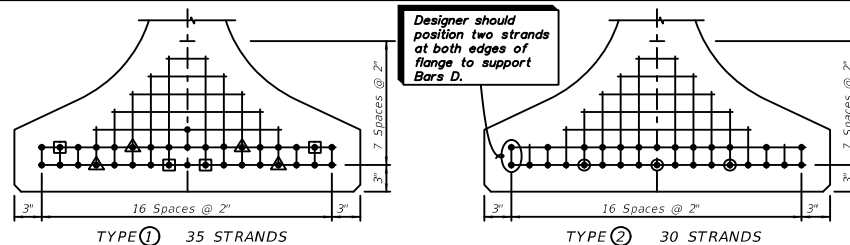
11'-3", 87' Span (5 Beams)

9'-0", 102' Span (6 Beams)

Design Span Length:

84'-6" (Spans 1 & 3)

99'-8" (Span 2)

[illegible]

*Designer should position two strands at both edges of flange to support Bars D.*

NOTE: Work this sheet with Design Standards Index Nos. 20010 and the applicable "Florida-I Beam Standard Details" Index.

### DIMENSION NOTES

\* All longitudinal beam dimensions shown on this sheet with a single asterisk (\*) are measured along the centerline of beam. Dimension "R" is calculated at mid-height of the beam.

## STRAND DEBONDING LEGEND

- - fully bonded strands.
- ⊙ - strands debonded 10'-0" from end of beam.
- ◻ - strands debonded 20'-0" from end of beam.
- △ - strands debonded 25'-0" from end of beam.

*\*\* End beam bearing dimensions "J" and "K" are measured perpendicular to  $\phi$  Bearing along the bottom of the beam.*

### BEARING PLATES

\*\*\* See the Bearing Plate Data Table for details.

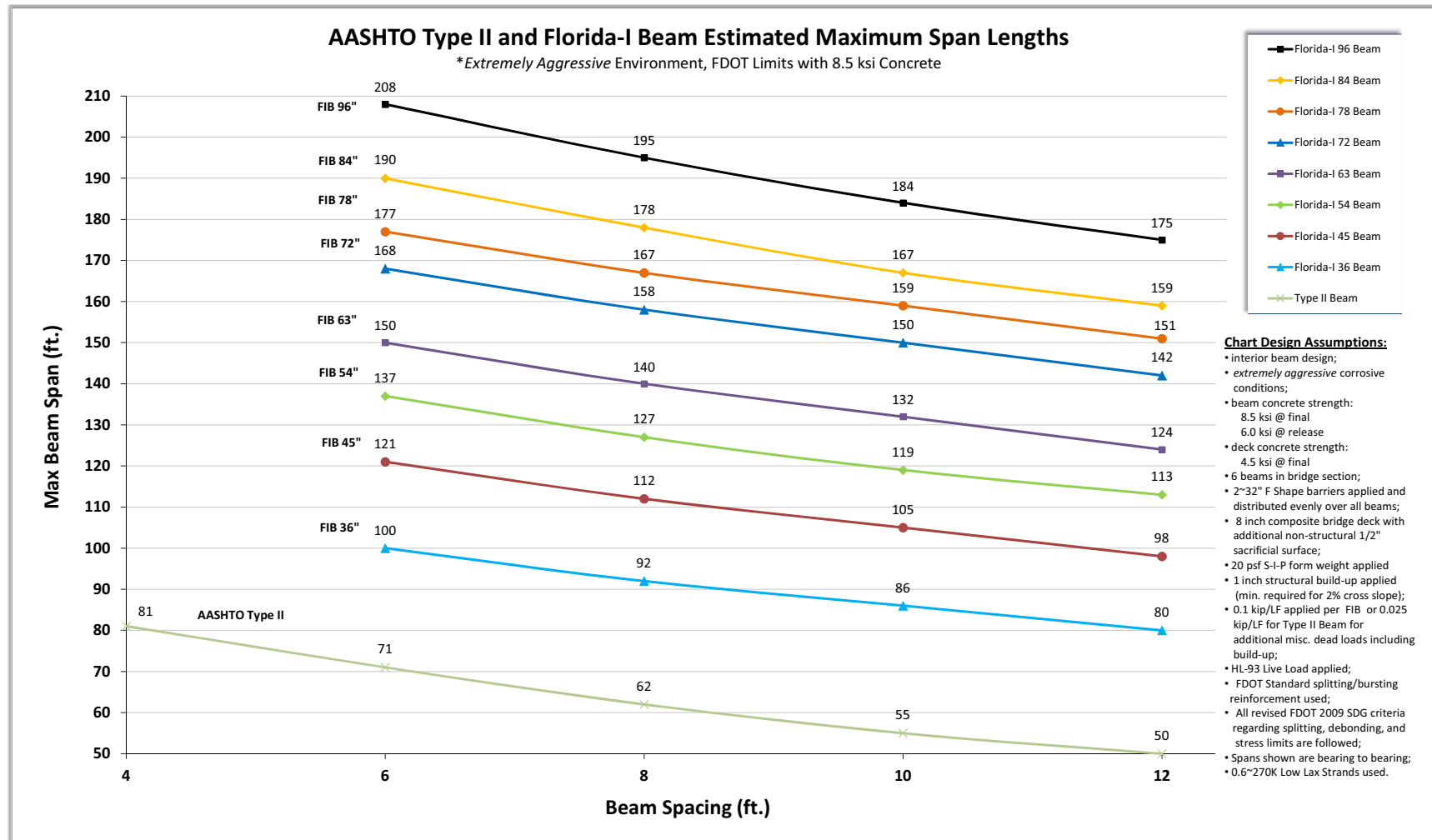
NOTE: On beams with skewed ends, the debonded length shall be measured along the shielded strand.

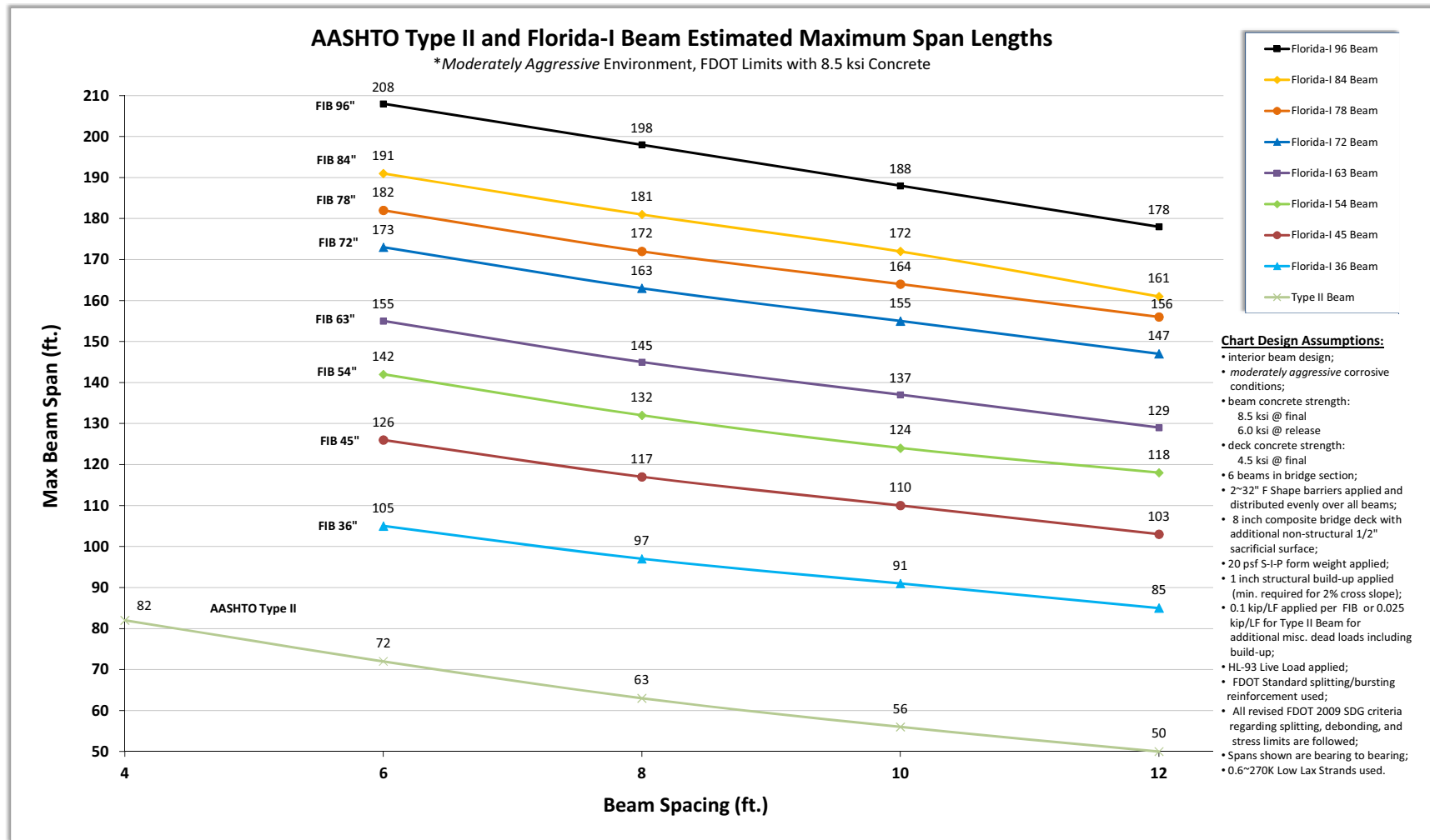
STRAND DESCRIPTION: Use 0.6 Diameter, Grade 270, Low Relaxation Carbon Steel Strands stressed at 44 kips each. Area per strand equals 0.217 sq. in.

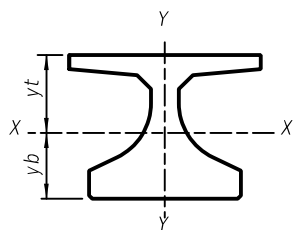
## STRAND PATTERNS

|                  |    |             |      |    |             |  |  |  |  |  |  |                                   |  |                                |  |
|------------------|----|-------------|------|----|-------------|--|--|--|--|--|--|-----------------------------------|--|--------------------------------|--|
| <b>REVISIONS</b> |    |             |      |    |             | DRAWN BY:<br>XXX MM-YY<br>CHECKED BY:<br>XXX MM-YY<br>ESTIMATED BY:<br>XXX MM-YY<br>CHECKED BY:<br>XXX MM-YY |  |  | <b>STATE OF FLORIDA</b><br><b>DEPARTMENT OF TRANSPORTATION</b><br><br>ROAD NO.      COUNTY      FINANCIAL PROJECT ID |  |  | SHEET TITLE:<br><br>PROJECT NAME: |  | REF. ENG. NO.<br><br>SHEET NO. |  |
| DATE             | BY | DESCRIPTION | DATE | BY | DESCRIPTION |  |  |  | SAMPLE   |  |  |                                   |  |                                |  |
|                  |    |             |      |    |             |  |  |  |  |  |  |                                   |  |                                |  |

## Design Aids



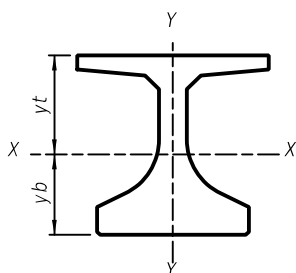




*FIB-36*  
(INDEX 20036)

#### FIB-36 SECTION PROPERTIES

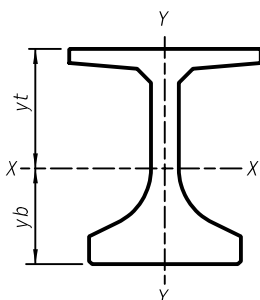
|                                     |         |
|-------------------------------------|---------|
| Area (in. <sup>2</sup> )            | 806.58  |
| Perimeter (in.)                     | 206.57  |
| I <sub>xx</sub> (in. <sup>4</sup> ) | 127,545 |
| I <sub>yy</sub> (in. <sup>4</sup> ) | 81,070  |
| yt (in.)                            | 19.51   |
| yb (in.)                            | 16.49   |



*FIB-45*  
(INDEX 20045)

#### FIB-45 SECTION PROPERTIES

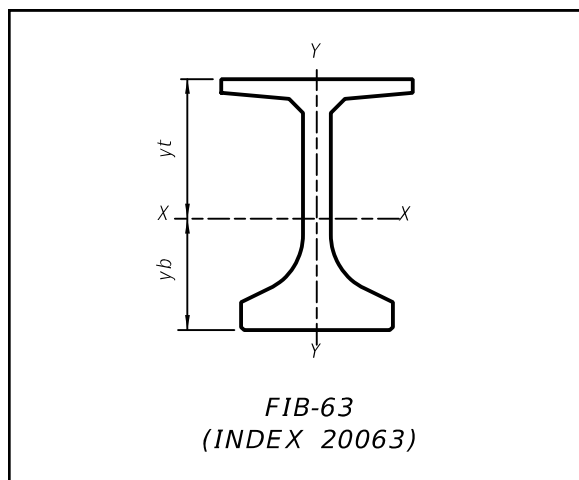
|                                     |         |
|-------------------------------------|---------|
| Area (in. <sup>2</sup> )            | 869.58  |
| Perimeter (in.)                     | 224.57  |
| I <sub>xx</sub> (in. <sup>4</sup> ) | 226,581 |
| I <sub>yy</sub> (in. <sup>4</sup> ) | 81,327  |
| yt (in.)                            | 24.79   |
| yb (in.)                            | 20.21   |



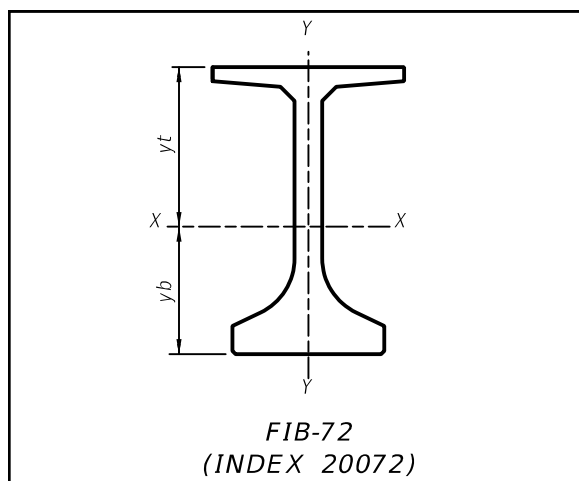
*FIB-54*  
(INDEX 20054)

#### FIB-54 SECTION PROPERTIES

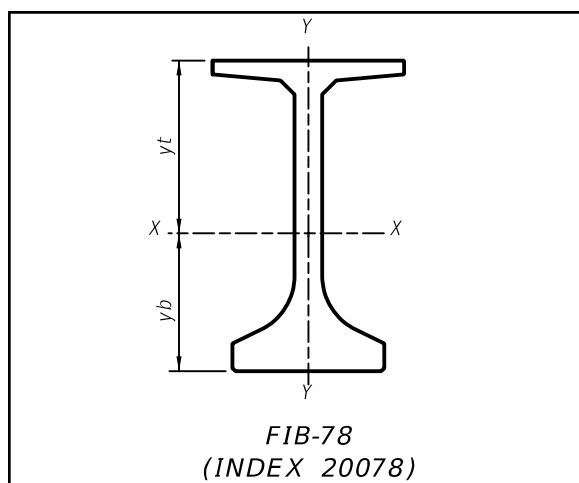
|                                     |         |
|-------------------------------------|---------|
| Area (in. <sup>2</sup> )            | 932.58  |
| Perimeter (in.)                     | 242.57  |
| I <sub>xx</sub> (in. <sup>4</sup> ) | 359,929 |
| I <sub>yy</sub> (in. <sup>4</sup> ) | 81,584  |
| yt (in.)                            | 29.96   |
| yb (in.)                            | 24.04   |



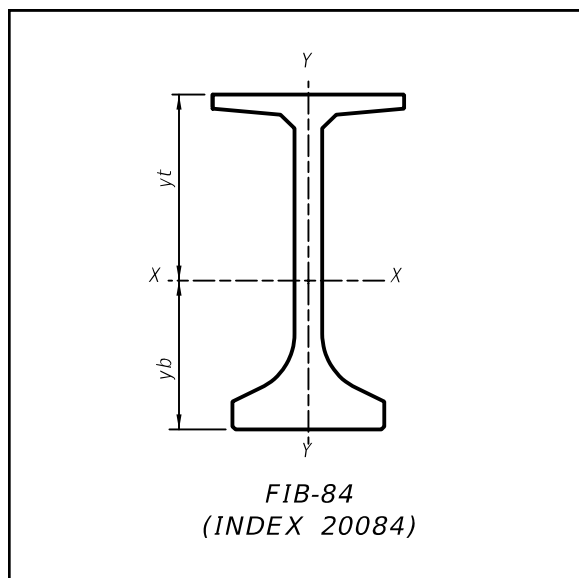
| <b>FIB-63 SECTION PROPERTIES</b>    |         |
|-------------------------------------|---------|
| Area (in. <sup>2</sup> )            | 995.58  |
| Perimeter (in.)                     | 260.57  |
| I <sub>xx</sub> (in. <sup>4</sup> ) | 530,313 |
| I <sub>yy</sub> (in. <sup>4</sup> ) | 81,842  |
| yt (in.)                            | 35.04   |
| yb (in.)                            | 27.96   |



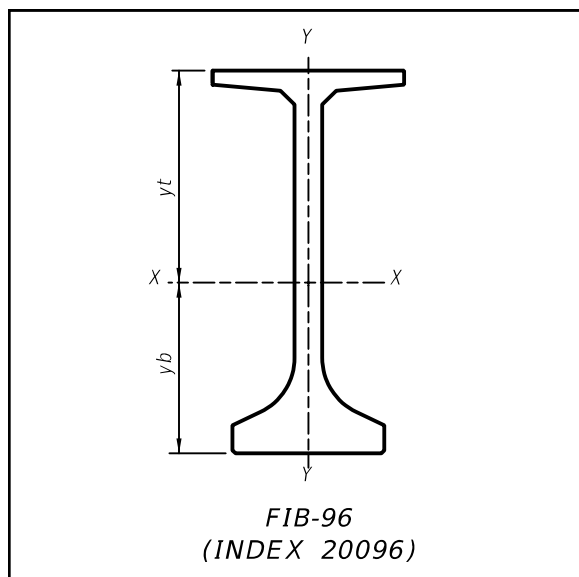
| <b>FIB-72 SECTION PROPERTIES</b>    |          |
|-------------------------------------|----------|
| Area (in. <sup>2</sup> )            | 1,058.58 |
| Perimeter (in.)                     | 278.57   |
| I <sub>xx</sub> (in. <sup>4</sup> ) | 740,416  |
| I <sub>yy</sub> (in. <sup>4</sup> ) | 82,099   |
| yt (in.)                            | 40.06    |
| yb (in.)                            | 31.94    |



| <b>FIB-78 SECTION PROPERTIES</b>    |          |
|-------------------------------------|----------|
| Area (in. <sup>2</sup> )            | 1,100.58 |
| Perimeter (in.)                     | 290.57   |
| I <sub>xx</sub> (in. <sup>4</sup> ) | 903,861  |
| I <sub>yy</sub> (in. <sup>4</sup> ) | 82,270   |
| yt (in.)                            | 43.37    |
| yb (in.)                            | 34.63    |



| <b>FIB-84 SECTION PROPERTIES</b> |                     |
|----------------------------------|---------------------|
| Area (in. <sup>2</sup> )         | 1,142.58            |
| Perimeter (in.)                  | 302.57              |
| $I_{xx}$ (in. <sup>4</sup> )     | $1.087 \times 10^6$ |
| $I_{yy}$ (in. <sup>4</sup> )     | 82,442              |
| $y_t$ (in.)                      | 46.66               |
| $y_b$ (in.)                      | 37.34               |



| <b>FIB-96 SECTION PROPERTIES</b> |                     |
|----------------------------------|---------------------|
| Area (in. <sup>2</sup> )         | 1,226.58            |
| Perimeter (in.)                  | 326.57              |
| $I_{xx}$ (in. <sup>4</sup> )     | $1.515 \times 10^6$ |
| $I_{yy}$ (in. <sup>4</sup> )     | 82,785              |
| $y_t$ (in.)                      | 53.18               |
| $y_b$ (in.)                      | 42.82               |



July 25, 2017

C.W. Matthews Contracting Co., Inc.  
Attention: Robert W. Thompson, Jr.  
Lead Contractor Project Manager  
Post Office Drawer 970  
Marietta, Georgia 30061

RE: ATC CWM-006 – Revised Maximum PSC Beam Spacing

Dear Mr. Thompson:

The Georgia Department of Transportation has completed review of the above mentioned ATC and provides the following response:


- ☒ The ATC, as submitted, is acceptable for inclusion in the Proposal.
- ☐ The ATC is not acceptable for inclusion in the Proposal.
- ☐ The ATC is not acceptable in its present form, but may be acceptable upon the satisfaction, in GDOT's sole discretion, of certain identified conditions which must be met or clarifications or modifications that must be made, including, but not limited to, any required environmental reevaluation related to the ATC, which GDOT may condition upon a GDOT Re-evaluation Period.
- ☐ The submittal does not qualify as an ATC but may be included in Proposer's Proposal because it appears to be within the requirements of the RFP.
- ☐ The submittal does not qualify as an ATC and may not be included in the Proposal.

Please see the attached comments that were generated relative to the decision provided above.

Any resubmitted ATC shall be provided with the same three digit number with an alpha numeric letter starting with the letter "A" for the first resubmittal and "B" for a second submittal, etc., if necessary and address all comments for re-review.

The Georgia Department of Transportation appreciates the effort by your team to provide innovation and improve the overall success of the I-85 Express Lanes project.

Sincerely,

A handwritten signature in blue ink, consisting of several overlapping loops and a final horizontal stroke.

ATC Review Team Chair

Attachment: ATC Review Form

CC: Meg Pirkle, Chief Engineer – Memo only  
Joe Carpenter, Division Director of P3 – Memo only  
Darryl VanMeter, Asst. P3 Division Director / State Innovative Delivery Administrator  
General Files – Memo only

**CONFIDENTIAL**

**Attachment 1  
ATC Review Form**

**1. General comments:**

a. N/A

**2. Environmental comments:**

a. N/A

**3. Utilities comments:**

a. N/A

**4. Right of Way comments:**

a. N/A

**5. Geotechnical comments:**

a. N/A

**6. Roadway comments:**

a. N/A

**7. Drainage/Erosion Control comments:**

a. N/A

**8. Bridges/Structures comments:**

a. This ATC proposes to increase the maximum beam spacing for superstructure utilizing PSC girders from 9'-0" as limited in the GDOT Design Bridge Manual to 10'-6" maximum spacing.

**9. ITS comments:**

a. N/A

**10. Signing and Marking comments:**

a. N/A

**11. Other**

a. N/A



**C. W. Matthews Contracting Co., Inc.**

**I-85 Widening Project**

**PI No. 110610; Gwinnett & Barrow Counties**

**ALTERNATIVE TECHNICAL CONCEPT CWM-006**

**CONFIDENTIAL ATC**

**Submitted: July 06, 2017**





***C. W. MATTHEWS CONTRACTING CO., INC.***

***Post Office Drawer 970***

***Marietta, Georgia 30061***

July 6, 2017

Mr. Chip Meeks  
Office of Innovative Delivery / P3 Administrator  
Georgia Department of Transportation  
One Georgia Center, 19<sup>th</sup> Floor  
600 West Peachtree Street, NW  
Atlanta, Georgia 30308

RE: I-85 Widening Project – Confidential ATC  
Alternative Technical Concept CWM-006 – Revised Maximum PSC Beam Spacing

Mr. Meeks,

In accordance with the requirements established in the Instructions to Proposers issued May 26, 2017 and amended June 30, 2017, C. W. Matthews Contracting Co., Inc. hereby submits and requests review of the above referenced Alternative Technical Concept.

As requested, two hard copies and two electronic copies in PDF format, which includes all technical information, are provided with this submittal. If additional information or clarifications are needed, please do not hesitate to contact me at your convenience.

Sincerely,

C. W. Matthews Contracting Co., Inc.

A handwritten signature in blue ink, appearing to read 'Robert W. Thompson, Jr.', is written over the printed name.

Robert W Thompson, Jr.  
Lead Contractor Project Manager

## **ATC CWM-006 – Revised Maximum PSC Beam Spacing**

### **I-85 Widening Design-Build Project**

**Submittal Date: 07/06/2017**

#### **1. Description:**

*The C.W. Matthews Team (CWM)* proposes to utilize 10'-6" maximum beam spacing for PSC beams in the design and construction of all bridge replacements.

#### **2. Usage:**

This ATC will be utilized in design and construction of the replacement bridges.

#### **3. Contract Changes:**

The use of 10'-6" maximum beam spacing for PSC beam bridges deviates from the current GDOT Bridge and Structures Design Manual, Section 3.4.2.7. This section states: *The maximum beam spacing is 9'-0"*. We proposed to modify Section 3.4.2.7 as follows: *The maximum beam spacing is 10'-6"*. This deviation is indicated in Form P provided in Attachment A to this ATC.

#### **4. Justification:**

The proposed ATC will provide design and construction efficiencies by allowing a larger maximum beam spacing to be used. The increase in beam spacing can be used to optimize superstructure designs by eliminating beam lines while keeping the same level of performance and quality as a bridge with 9'-0" beam spacing. The AASHTO LRFD Bridge Design Specifications has provisions for beam spacing up to 15'-0" however, most State DOTs set a smaller limit of 12'-0" to 13'-0" for PSC beam bridges. The proposed limit of 10'-6" is a modest increase from the current limit and would match the specified limit for plate girder bridges (Technical Provisions Vol. 2 13.2.2). Bridges designed using this ATC will meet the same strength and service requirements as specified by AASHTO LRFD and the GDOT Bridge Manual. Allowing beam spacings up to 10'-6" provides the ability to optimize exterior beam overhangs when beams have excess design capacity, without adding additional beam lines. Minimizing the exterior overhang reduces the stresses on the deck overhang and can balance out the exterior and interior beam design demands, providing a more balanced bridge system. Smaller overhangs also reduces construction bracing and overhang bracket demands, reducing the loads during deck pours.

#### **5. Impacts:**

The use of the proposed ATC would have the following potential impacts:

*Vehicular Traffic* - There would be no impacts to vehicular traffic through the implementation of this ATC.

*Environmental Impacts* - There would be no additional environmental impacts to vehicular traffic through the implementation of this ATC.

*Construction Schedule Impacts* – There would be some reduction in fabrication and construction timelines but no major impacts to the schedule.

*Community Impacts* - There would be no additional community impacts to through the implementation of this ATC.

## ATC CWM-006 – Revised Maximum PSC Beam Spacing

### I-85 Widening Design-Build Project

**Submittal Date: 07/06/2017**

*Safety and Life-Cycle Costs* - There would be no additional safety or life-cycle impacts through implementation of this ATC. All replacement bridges will meet AASHTO LRFD requirements.

#### **6. Cost Savings:**

The use of the proposed ATC will potentially reduce the cost of the replacement bridge structures without sacrificing quality. The use of 10'-6" maximum PSC beam spacing can reduce the quantity of beams needed for the project by eliminating beam lines. This optimization reduces the number of beam bays per bridge and minimizes time in fabrication, shipping, erection, and construction. Eliminating beam lines minimizes pile driving operations at end bents, where it is standard to place one pile under each beam. Deck forming and diaphragm/edge beam/end wall construction operations are also optimized when beam lines are reduced since each bay must be individually formed and SIP forms must be measured and placed. **CWM** conservatively estimates the potential cost savings due to the implementation of this ATC to be approximately \$406,600 based on the estimate below:

| Item                         | Qty   | UOM | Rate      | Total                  |
|------------------------------|-------|-----|-----------|------------------------|
| Reduction in Beam Lines      | -1560 | LF  | \$ 260.00 | \$ (405,600.00)        |
| Reduction in End Bent Piling | -400  | LF  | \$ 60.00  | \$ (24,000.00)         |
| Increase in Deck Thickness   | 200   | CY  | \$ 115.00 | \$ 23,000.00           |
|                              |       |     |           | <b>\$ (406,600.00)</b> |

While the overall cost to the project may not be reduced due to the variable scope nature of the procurement, the use of the proposed ATC will provide the opportunity to complete additional segments of work under the proposed \$115,000,000 Cap and can potentially result in earlier completion of portions of the work while staying within the specified Maximum Annual Cumulative Payment Cap.

#### **7. Time Savings:**

The use of the proposed ATC will reduce the amount of time required to fabricate and construct each bridge replacement. Based on **CWM's** preliminary analysis of the construction durations for the bridge replacements, it is anticipated that this ATC would save time however, at this point it is not possible to accurately project the overall time savings since intermediate early open durations and final completion dates will be dependent on the final segmentation of the project and how seasonal limitations may affect certain operations.

#### **8. Risks:**

The use of the proposed ATC has no inherent risks to the project. PSC beam spacing of 10'-6" or greater are allowed by AASHTO LRFD Specifications and the bridge designs will meet all AASHTO design requirements.

## **ATC CWM-006 – Revised Maximum PSC Beam Spacing**

### **I-85 Widening Design-Build Project**

**Submittal Date: 07/06/2017**

*Post Construction* – No additional risks to the project.

*Operation* – No additional risks to the project.

*Maintenance* – No additional risks to the project.

#### **9. Quality:**

The use of the proposed ATC will have no impact on the quality of the finished project. The bridge designs will meet all AASHTO design requirements.

#### **10. Costs:**

The use of the proposed ATC will reduce the cost of the bridge replacements which ultimately benefits GDOT and SRTA. No additional costs to GDOT or SRTA are anticipated by implementation of this ATC.

#### **11. Operations:**

The use of the proposed ATC will not result in any change to the operations requirements of the project.

#### **12. Maintenance:**

The use of the proposed ATC does not require any changes in maintenance requirements.

#### **13. Anticipated Life:**

The use of the proposed ATC does not result in any change to the anticipated life of the project.

#### **14. Right-of-Way:**

The use of the proposed ATC does not impact the required Right-of-Way to be purchased for the construction of the project.

#### **15. Past Use:**

The use of the proposed ATC is allowed by AASHTO LRFD specifications and PSC beam spacing of 10'-6" and greater are used by many State DOTs including Florida, North Carolina, South Carolina, and Wisconsin. A similar ATC was also approved for use in the I-285 & SR 400 Reconstruction project (NPC-004A).

#### **16. Sale of Work Product:**

**CWM** is prepared to sell this ATC to GDOT in accordance with the terms of Section 3.8 of the ITP.

**ATC CWM-006 – Revised Maximum PSC Beam Spacing**

***I-85 Widening Design-Build Project***

**Submittal Date: 07/06/2017**

**ATTACHMENT A**

**Form P**



| <b>NEPA Study Impacts</b>               |  |                           |                        |  |
|---|--|---------------------------|------------------------|--|
| <b>No.</b>                              | <b>Area</b>                                      | <b>No Change Required</b> | <b>Change Required</b> | <b>If change required, provide a brief description of the proposed change.</b> |
| 1                                       | Purpose and Need                                 | X                         |                        |  |
| 2                                       | Project Termini                                  | X                         |                        |  |
| 3                                       | Property Acquisition                             | X                         |                        |  |
| 4                                       | Historic and Archeological                       | X                         |                        |  |
| 5                                       | Parklands and Other 4 (f) Resources              | X                         |                        |  |
| 6                                       | Air Quality                                      | X                         |                        |  |
| 7                                       | Noise  | X                         |                        |  |
| 8                                       | Hazardous Materials                              | X                         |                        |  |
| 9                                       | Water Resources/Water Quality                    | X                         |                        |  |
| 10                                      | Indirect and Cumulative Impacts                  | X                         |                        |  |
| 11                                      | Change in Selection of Preferred Alternative     | X                         |                        |  |
| 12                                      | Environmentally Sensitive Areas                  | X                         |                        |  |
| 13                                      | Environmental Justice                            | X                         |                        |  |
| 14                                      | Operations                                       | X                         |                        |  |
| 15                                      | Visual-Aesthetics                                | X                         |                        |  |
| 16                                      | Permits  | X                         |                        |  |
| 17                                      | Environmental Commitments (Green sheet)          | X                         |                        |  |
| <b>DB Contract – Volumes 2 and/or 3</b> |  | <b>No Change Required</b> | <b>Change Required</b> | <b>If change required, provide a brief description of the proposed change.</b> |
| 1                                       | Section 1- General                               | X                         |                        |  |
| 2                                       | Section 2- Project Management                    | X                         |                        |  |
| 3                                       | Section 3- Public Information and Communications | X                         |                        |  |
| 4                                       | Section 4- Environmental                         | X                         |                        |  |
| 5                                       | Section 6- Utilities                             | X                         |                        |  |
| 6                                       | Section 7- Right of Way                          | X                         |                        |  |

|   |  |                           |                        |  |
|---|--|---------------------------|------------------------|--|
| 7   | Section 8- Geotechnical                              | X                         |                        |  |
| 8   | Section 9- Surveying and Mapping                     | X                         |                        |  |
| 9   | Section 10- Grading                                  | X                         |                        |  |
| 10  | Section 11- Roadway                                  | X                         |                        |  |
| 11  | Section 12- Drainage                                 | X                         |                        |  |
| 12  | Section 13- Structures                               | X                         |                        |  |
| 13  | Section 14- Rail                                     | X                         |                        |  |
| 14  | Section 15- Landscape and Hardscape Enhancements     | X                         |                        |  |
| 15  | Section 16- Signing, Pavement Marking, Signalization | X                         |                        |  |
| 16  | Section 17- ITS                                      | X                         |                        |  |
| 17  | Section 18- Traffic Control                          | X                         |                        |  |
| 18  | Section 19- Maintenance                              | X                         |                        |  |
| 19  | Section 20- Bicycle and Pedestrian Facilities        | X                         |                        |  |
| 20  | Section 21- Tolling                                  | X                         |                        |  |
| 21  | Section 22- Operations                               | X                         |                        |  |
| 22  | Section 23-Submittals                                | X                         |                        |  |
| 23  | Any related Attachments                              | X                         |                        |  |
| <b>Design Exceptions and Variances</b>  |  |                           |                        |  |
| 1   | Does the ATC require any Design Exceptions?          | X                         |                        |  |
| 2   | Does the ATC require any Design Variances?           | X                         |                        |  |
| <b>Volume 3 Manuals (list any Manuals which require changes including section number)</b> |  | <b>No Change Required</b> | <b>Change Required</b> | <b>If change required, provide a brief description of the proposed change.</b> |
|   | GDOT Bridge Manual                                   |                           | X                      | Revision to Section 3.4.2.7 would be required                                  |
|   |  |                           |                        |  |
|   |  |                           |                        |  |
|   |  |                           |                        |  |
|   |  |                           |                        |  |



July 25, 2017

C.W. Matthews Contracting Co., Inc.  
Attention: Robert W. Thompson, Jr.  
Lead Contractor Project Manager  
Post Office Drawer 970  
Marietta, Georgia 30061

RE: ATC CWM-011 – Revised I-85 Full Depth Pavement Design

Dear Mr. Thompson:

The Georgia Department of Transportation has completed review of the above mentioned ATC and provides the following response:

          X           The ATC, as submitted, is acceptable for inclusion in the Proposal.

                           The ATC is not acceptable for inclusion in the Proposal.

                           The ATC is not acceptable in its present form, but may be acceptable upon the satisfaction, in GDOT's sole discretion, of certain identified conditions which must be met or clarifications or modifications that must be made, including, but not limited to, any required environmental reevaluation related to the ATC, which GDOT may condition upon a GDOT Re-evaluation Period.

                           The submittal does not qualify as an ATC but may be included in Proposer's Proposal because it appears to be within the requirements of the RFP.

                           The submittal does not qualify as an ATC and may not be included in the Proposal.

Please see the attached comments that were generated relative to the decision provided above.

Any resubmitted ATC shall be provided with the same three digit number with an alpha numeric letter starting with the letter "A" for the first resubmittal and "B" for a second submittal, etc., if necessary and address all comments for re-review.

The Georgia Department of Transportation appreciates the effort by your team to provide innovation and improve the overall success of the I-85 Express Lanes project.

Sincerely,

A handwritten signature in blue ink, consisting of several overlapping loops and a trailing line.

ATC Review Team Chair

Attachment: ATC Review Form

CC: Meg Pirkle, Chief Engineer – Memo only  
Joe Carpenter, Division Director of P3 – Memo only  
Darryl VanMeter, Asst. P3 Division Director / State Innovative Delivery Administrator  
General Files – Memo only

**CONFIDENTIAL**

**Attachment 1  
ATC Review Form**

**1. General comments:**

a. N/A

**2. Environmental comments:**

a. N/A

**3. Utilities comments:**

a. N/A

**4. Right of Way comments:**

a. N/A

**5. Geotechnical comments:**

a. N/A

**6. Roadway comments:**

a. N/A

**7. Drainage/Erosion Control comments:**

a. N/A

**8. Bridges/Structures comments:**

a. N/A

**9. ITS comments:**

a. N/A

**10. Signing and Marking comments:**

a. N/A

**11. Other**

- a. Revised pavement section must be submitted to the Pavement Design Committee for acceptance.
- b. All acceptance criteria for density, etc. must be met on construction.





**C. W. Matthews Contracting Co., Inc.**

**I-85 Widening Project**

**PI No. 110610; Gwinnett & Barrow Counties**

**ALTERNATIVE TECHNICAL CONCEPT CWM-011**

**CONFIDENTIAL ATC**

**Submitted: July 06, 2017**





***C. W. MATTHEWS CONTRACTING CO., INC.***

***Post Office Drawer 970  
Marietta, Georgia 30061***

July 7, 2017

Mr. Chip Meeks  
Office of Innovative Delivery / P3 Administrator  
Georgia Department of Transportation  
One Georgia Center, 19<sup>th</sup> Floor  
600 West Peachtree Street, NW  
Atlanta, Georgia 30308

RE: I-85 Widening Project – Confidential ATC  
Alternative Technical Concept CWM-011 – Revised I-85 Full Depth Pavement Design

Mr. Meeks,

In accordance with the requirements established in the Instructions to Proposers issued May 26, 2017 and amended June 30, 2017, C. W. Matthews Contracting Co., Inc. hereby submits and requests review of the above referenced Alternative Technical Concept.

As requested, two hard copies and two electronic copies in PDF format, which includes all technical information, are provided with this submittal. If additional information or clarifications are needed, please do not hesitate to contact me at your convenience.

Sincerely,  
C. W. Matthews Contracting Co., Inc.

A handwritten signature in blue ink that reads 'Robert W. Thompson, Jr.'.

Robert W Thompson, Jr.  
Lead Contractor Project Manager

## **ATC CWM-011 – Revised I-85 Full Depth Pavement Design**

### **I-85 Widening Design-Build Project – Confidential ATC**

**Submittal Date: 07/07/2017**

#### **1. Description:**

**The C.W. Matthews Team (CWM)** proposes to modify the pavement design for the I-85 General Purpose Lanes Widening and Inside Shoulder to utilize 16" GRADED AGGREGATE BASE and 1100 LBS/SY of RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 or 2, INCL BITUM MATL & LIME.

#### **2. Usage:**

The proposed ATC will be used throughout the limits of the project on the I-85 General Purpose Lane Widening and Inside Shoulder pavement design.

#### **3. Contract Changes:**

The proposed ATC deviates from the requirements of Volume 2, Section 11, Table 11-2 which specifies the proposed pavement designs for the project. Implementation of this ATC requires the pavement design for I-85 General Purpose Lane Widening and Inside Shoulder in Table 11-2 be revised as shown below. This deviation is indicated in Form P provided in Attachment A to this ATC.

| I-85 General Purpose Lane Widening and Inside Shoulder<br>(OGFC Layer only required for 18" of Inside Shoulder) |                    |
|---|--------------------|
| 12.5 MM OGFC  | 100 LBS/SY         |
| RECYCLED ASPH CONC 12.5 MM, SUPERPAVE, GP 2 ONLY,<br>INCL POLYMER-MODIFIED BITUM MATL & H LIME                  | 220 LBS/SY         |
| RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1<br>OR 2 INCL BITUM MATL & H LIME                                       | 220 LBS/SY         |
| RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1<br>OR 2 INCL BITUM MATL & H LIME                                       | <b>1100</b> LBS/SY |
| <b>16"</b> GRADED AGGREGATE BASE  | N/A                |

#### **4. Justification:**

The proposed ATC is an established practice by GDOT. The structural value of GAB is 0.16 per inch and the structural value of 25mm Asphalt Base is 0.30 per inch. As shown in Attachment B, the proposal to substitute Graded Aggregate Base (GAB) for 25mm Asphalt Base at a rate of 2:1 provides a slightly greater structural value for the overall pavement section. The 2:1 ratio is consistent with direction provided in the GDOT Pavement Design Manual Section 5.3.3 Table of Equivalent Thicknesses for alternate base material.

## **ATC CWM-011 – Revised I-85 Full Depth Pavement Design**

### **I-85 Widening Design-Build Project – Confidential ATC**

**Submittal Date: 07/07/2017**

#### **5. Impacts:**

The use of the proposed ATC would have the following impacts:

- *Vehicular Traffic* – No additional impacts to vehicular traffic
- *Environmental Impacts* – No additional impacts to environmental resources
- *Construction Schedule Impacts* – No additional impacts to the proposed construction schedule
- *Community Impacts* – No additional impacts to the Community
- *Safety and Life-Cycle Costs* – No additional impacts to safety or Life-Cycle Costs

#### **6. Cost Savings:**

The use of the proposed ATC will reduce the unit cost of the full depth pavement section. CWM estimates the potential cost savings due to the implementation of this ATC to be approximately \$2.53/SY, with a total savings for all 20 segments is estimated to be approximately \$1,006,000.00

While the overall cost to the project may not be reduced due to the variable scope nature of the procurement, the use of the proposed ATC will provide the opportunity to complete additional segments of work under the proposed \$115,000,000 Cap and potentially allow earlier completion of portions of the work while staying within the specified Maximum Annual Cumulative Payment Cap.

#### **7. Time Savings:**

The use of the proposed ATC will not reduce the amount of time required to construct this project.

#### **8. Risks:**

The use of the proposed ATC has the following risks:

- *Post Construction* – No additional risks would be realized by incorporation of this ATC
- *Operation* - No additional risks would be realized by incorporation of this ATC
- *Maintenance* - No additional risks would be realized by incorporation of this ATC

#### **9. Quality:**

The use of the proposed ATC will have no impact on the quality of the finished project.

#### **10. Costs:**

No additional costs to GDOT or SRTA are anticipated by implementation of this ATC.

## **ATC CWM-011 – Revised I-85 Full Depth Pavement Design**

### **I-85 Widening Design-Build Project – Confidential ATC**

**Submittal Date: 07/07/2017**

#### **11. Operations:**

The use of the proposed ATC will not result in any change to the operations requirements of the project.

#### **12. Maintenance:**

The use of the proposed ATC does not require any changes in maintenance requirements.

#### **13. Anticipated Life:**

The use of the proposed ATC does not result in any change to the anticipated life of the project.

#### **14. Right-of-Way:**

The use of the proposed ATC does not impact the required Right-of-Way to be purchased for the construction of the project.

#### **15. Past Use:**

The use of the proposed ATC is a standard practice in GDOT. Optimization of the pavement design by varying flexible pavement design layers is standard practice during the preparation of a project design. The use of 16-inch thick GAB has been routinely used on interstate widening and reconstruction projects with heavy truck traffic.

#### **16. Sale of Work Product:**

**CWM** is prepared to sell this ATC to GDOT in accordance with the terms of Section 3.8 of the ITP.

**ATC CWM-011 – Revised I-85 Full Depth Pavement Design**

***I-85 Widening Design-Build Project – Confidential ATC***

**Submittal Date: 07/07/2017**

**ATTACHMENT A**

*Form P*



| <b>NEPA Study Impacts</b>               |  |                           |                        |  |
|---|--|---------------------------|------------------------|--|
| <b>No.</b>                              | <b>Area</b>                                      | <b>No Change Required</b> | <b>Change Required</b> | <b>If change required, provide a brief description of the proposed change.</b> |
| 1                                       | Purpose and Need                                 | X                         |                        |  |
| 2                                       | Project Termini                                  | X                         |                        |  |
| 3                                       | Property Acquisition                             | X                         |                        |  |
| 4                                       | Historic and Archeological                       | X                         |                        |  |
| 5                                       | Parklands and Other 4 (f) Resources              | X                         |                        |  |
| 6                                       | Air Quality                                      | X                         |                        |  |
| 7                                       | Noise  | X                         |                        |  |
| 8                                       | Hazardous Materials                              | X                         |                        |  |
| 9                                       | Water Resources/Water Quality                    | X                         |                        |  |
| 10                                      | Indirect and Cumulative Impacts                  | X                         |                        |  |
| 11                                      | Change in Selection of Preferred Alternative     | X                         |                        |  |
| 12                                      | Environmentally Sensitive Areas                  | X                         |                        |  |
| 13                                      | Environmental Justice                            | X                         |                        |  |
| 14                                      | Operations                                       | X                         |                        |  |
| 15                                      | Visual-Aesthetics                                | X                         |                        |  |
| 16                                      | Permits  | X                         |                        |  |
| 17                                      | Environmental Commitments (Green sheet)          | X                         |                        |  |
| <b>DB Contract – Volumes 2 and/or 3</b> |  | <b>No Change Required</b> | <b>Change Required</b> | <b>If change required, provide a brief description of the proposed change.</b> |
| 1                                       | Section 1- General                               | X                         |                        |  |
| 2                                       | Section 2- Project Management                    | X                         |                        |  |
| 3                                       | Section 3- Public Information and Communications | X                         |                        |  |
| 4                                       | Section 4- Environmental                         | X                         |                        |  |
| 5                                       | Section 6- Utilities                             | X                         |                        |  |
| 6                                       | Section 7- Right of Way                          | X                         |                        |  |

|   |  |                           |                        |  |   |
|---|--|---------------------------|------------------------|--|---|
| 7   | Section 8- Geotechnical                              | X                         |                        |  |   |
| 8   | Section 9- Surveying and Mapping                     | X                         |                        |  |   |
| 9   | Section 10- Grading                                  | X                         |                        |  |   |
| 10  | Section 11- Roadway                                  |                           | X                      |  | Modification to Table 11-2 for the proposed pavement design |
| 11  | Section 12- Drainage                                 | X                         |                        |  |   |
| 12  | Section 13- Structures                               | X                         |                        |  |   |
| 13  | Section 14- Rail                                     | X                         |                        |  |   |
| 14  | Section 15- Landscape and Hardscape Enhancements     | X                         |                        |  |   |
| 15  | Section 16- Signing, Pavement Marking, Signalization | X                         |                        |  |   |
| 16  | Section 17- ITS                                      | X                         |                        |  |   |
| 17  | Section 18- Traffic Control                          | X                         |                        |  |   |
| 18  | Section 19- Maintenance                              | X                         |                        |  |   |
| 19  | Section 20- Bicycle and Pedestrian Facilities        | X                         |                        |  |   |
| 20  | Section 21- Tolling                                  | X                         |                        |  |   |
| 21  | Section 22- Operations                               | X                         |                        |  |   |
| 22  | Section 23-Submittals                                | X                         |                        |  |   |
| 23  | Any related Attachments                              | X                         |                        |  |   |
| <b>Design Exceptions and Variances</b>  |  | <b>No</b>                 | <b>Yes</b>             | <b>Description of each Design Exception or Variance</b>                        |   |
| 1   | Does the ATC require any Design Exceptions?          | X                         |                        |  |   |
| 2   | Does the ATC require any Design Variances?           | X                         |                        |  |   |
| <b>Volume 3 Manuals (list any Manuals which require changes including section number)</b> |  | <b>No Change Required</b> | <b>Change Required</b> | <b>If change required, provide a brief description of the proposed change.</b> |   |
|   |  |                           |                        |  |   |
|   |  |                           |                        |  |   |
|   |  |                           |                        |  |   |
|   |  |                           |                        |  |   |
|   |  |                           |                        |  |   |

**ATC CWM-011 – Revised I-85 Full Depth Pavement Design**

***I-85 Widening Design-Build Project – Confidential ATC***

**Submittal Date: 07/07/2017**

**ATTACHMENT B**

*Proposed Flexible Pavement Design Analysis*  
*GDOT Approved Flexible Pavement Design Analysis*



## Flexible Pavement Design Analysis

|                            |  |                    |                                     |
|----------------------------|--|--------------------|-------------------------------------|
| <b>PI Number</b>           | 0110610  | <b>County(s)</b>   | Gwinnett & Barrow                   |
| <b>Project Number</b>      | NH-IM-85-2(165)  | <b>Design Name</b> | I-85 Widening - ATC Pavement Design |
| <b>Project Description</b> | I-85 Widening and Improvements from North of CR 134 to North of SR 211 |                    |                                     |

| Traffic Data (AADTs are one-way) |      |                          |        |                        |       | Miscellaneous Data               |     |
|----------------------------------|------|--------------------------|--------|------------------------|-------|----------------------------------|-----|
| <b>Initial Design Year</b>       | 2019 | <b>Initial AADT, VPD</b> | 35,125 | <b>24 Hour Truck %</b> | 26.00 | <b>Lanes in one direction</b>    | 3   |
| <b>Final Design Year</b>         | 2039 | <b>Final AADT, VPD</b>   | 47,225 | <b>SU Truck %</b>      | 3.00  | <b>Curb &amp; Gutter/Barrier</b> | Yes |
|                                  |      | <b>Mean AADT, VPD</b>    | 41,175 | <b>MU Truck %</b>      | 23.00 |                                  |     |

| Design Data                          |       |                                 |      |                               |      |
|--------------------------------------|-------|---------------------------------|------|-------------------------------|------|
| <b>Lane Distribution Factor (%)</b>  | 55.00 | <b>Soil Support Value</b>       | 3.00 | <b>Single Unit ESAL</b>       | 0.40 |
| <b>Terminal Serviceability Index</b> | 2.50  | <b>Regional Factor</b>          | 1.80 | <b>Multiple Unit ESAL</b>     | 1.50 |
|                                      |       | <b>User Defined 18-KIP ESAL</b> | 0.00 | <b>Calculated 18-KIP ESAL</b> | 1.37 |
| <b>Non-Standard Value Comment</b>    |       |                                 |      |                               |      |

| Design Loading (Calculated 18-KIP ESAL) |         |                   |            |             |            |
|---|---------|-------------------|------------|-------------|------------|
| Mean AADT, VPD                          | LDF (%) | Vehicle Type      | Volume (%) | ESAL Factor | Daily ESAL |
| 41,175                                  | 55.00   | Single Unit Truck | 3.00       | 0.40        | 272        |
|   |         | Multi Unit Truck  | 23.00      | 1.50        | 7,813      |
| Total Daily ESALs                       |         |                   |            |             | 8,085      |
| Total Design Period ESALs               |         |                   |            |             | 59,020,500 |

| Proposed Flexible Full Depth Pavement Structure |                       |   |                               |                         |
|---|-----------------------|---|-------------------------------|-------------------------|
| <b>Course</b>                                   | <b>Material</b>       | <b>Thickness (inches)</b>                       | <b>Structural Coefficient</b> | <b>Structural Value</b> |
| Course 1  | 12.5 mm OGFC          | 90 lbs/sy                                       | 0.0000                        | 0.00                    |
| Course 2  | 12.5 mm SMA           | 2.00  | 0.4400                        | 0.88                    |
| Course 3  | 19 mm Superpave       | 2.00  | 0.4400                        | 0.88                    |
| Course 4  | 25 mm Superpave       | 0.50  | 0.4400                        | 0.22                    |
|   |                       | 9.50  | 0.3000                        | 2.85                    |
| Course 5  | Graded Aggregate Base | 16.00   | 0.1600                        | 2.56                    |
| <b>Required SN</b>                              | 7.53                  | <b>Proposed pavement is 1.87% Underdesigned</b> |                               | <b>Proposed SN</b> 7.39 |

|                       |  |
|-----------------------|--|
| <b>Design Remarks</b> | Proposed Design to Utilize 4" additional GAB and remove 2" of 25 MM SP |
|-----------------------|--|

|                       |                                |             |                  |
|-----------------------|--------------------------------|-------------|------------------|
| <b>Prepared By</b>    | Tyler McIntosh                 | <b>Date</b> | 7/7/2017 9:40 AM |
| <b>Recommended By</b> | Consultant Design Phase Leader | <b>Date</b> |                  |
| <b>Approved By</b>    | State Pavement Engineer        | <b>Date</b> |                  |

| Flexible Pavement Design Analysis |  |             |  |
|-----------------------------------|--|-------------|--|
| PI Number                         | 0110610  | County(s)   | Gwinnett & Barrow                        |
| Project Number                    | NH-IM-85-2(165)  | Design Name | Full Depth I-85 N of CR134 to N of SR211 |
| Project Description               | I-85 Widening and Improvements from North of CR 134 to North of SR 211 |             |  |

| Traffic Data (AADTs are one-way) |      |                   |        |                 |       | Miscellaneous Data     |     |
|----------------------------------|------|-------------------|--------|-----------------|-------|------------------------|-----|
| Initial Design Year              | 2019 | Initial AADT, VPD | 35,125 | 24 Hour Truck % | 26.00 | Lanes in one direction | 3   |
| Final Design Year                | 2039 | Final AADT, VPD   | 47,225 | SU Truck %      | 3.00  | Curb & Gutter/Barrier  | Yes |
|                                  |      | Mean AADT, VPD    | 41,175 | MU Truck %      | 23.00 |                        |     |

| Design Data                   |       |                          |      |                        |      |
|-------------------------------|-------|--------------------------|------|------------------------|------|
| Lane Distribution Factor (%)  | 55.00 | Soil Support Value       | 3.00 | Single Unit ESAL       | 0.40 |
| Terminal Serviceability Index | 2.50  | Regional Factor          | 1.80 | Multiple Unit ESAL     | 1.50 |
|                               |       | User Defined 18-KIP ESAL | 0.00 | Calculated 18-KIP ESAL | 1.37 |
| Non-Standard Value Comment    |       |                          |      |                        |      |

| Design Loading (Calculated 18-KIP ESAL) |         |                   |            |             |            |
|---|---------|-------------------|------------|-------------|------------|
| Mean AADT, VPD                          | LDF (%) | Vehicle Type      | Volume (%) | ESAL Factor | Daily ESAL |
| 41,175                                  | 55.00   | Single Unit Truck | 3.00       | 0.40        | 272        |
|   |         | Multi Unit Truck  | 23.00      | 1.50        | 7,813      |
| Total Daily ESALs                       |         |                   |            |             | 8,085      |
| Total Design Period ESALs               |         |                   |            |             | 59,020,500 |

| Proposed Flexible Full Depth Pavement Structure |                       |  |                        |                  |
|---|-----------------------|--|------------------------|------------------|
| Course  | Material              | Thickness (Inches)                       | Structural Coefficient | Structural Value |
| Course 1  | 12.5 mm OGFC          | 100 lbs/sy                               | 0.0000                 | 0.00             |
| Course 2  | 12.5 mm SMA           | 2.00                                     | 0.4400                 | 0.88             |
| Course 3  | 19 mm Superpave       | 2.00                                     | 0.4400                 | 0.88             |
| Course 4  | 25 mm Superpave       | 0.50                                     | 0.4400                 | 0.22             |
|   |                       | 11.50                                    | 0.3000                 | 3.45             |
| Course 5  | Graded Aggregate Base | 12.00                                    | 0.1600                 | 1.92             |
| Required SN                                     | 7.53                  | Proposed pavement is 2.40% Underdesigned |                        | Proposed SN 7.35 |

|                |  |
|----------------|--|
| Design Remarks | GDOT approved use of 12.5mm OGFC on adjacent project PI No.110600; therefore, we recommend staying consistent with adjacent approved design. |
|----------------|--|

Prepared By

*Nicholas Diorio*

1/30/2017 11:21 AM

Nicholas Diorio, P.E. - Project Manager

Date

Recommended By

*Monica J. Kelly*  
Consultant Design Phase Leader

1-30-2017

Date

Approved By

*Monica J. Kelly*  
State Pavement Engineer

2/24/2017

Date

Materials



July 25, 2017

C.W. Matthews Contracting Co., Inc.  
Attention: Robert W. Thompson, Jr.  
Lead Contractor Project Manager  
Post Office Drawer 970  
Marietta, Georgia 30061

RE: ATC CWM-015 – Increase Maximum 25MM Layer Thickness

Dear Mr. Thompson:

The Georgia Department of Transportation has completed review of the above mentioned ATC and provides the following response:

      X       The ATC, as submitted, is acceptable for inclusion in the Proposal.

                     The ATC is not acceptable for inclusion in the Proposal.

                     The ATC is not acceptable in its present form, but may be acceptable upon the satisfaction, in GDOT's sole discretion, of certain identified conditions which must be met or clarifications or modifications that must be made, including, but not limited to, any required environmental reevaluation related to the ATC, which GDOT may condition upon a GDOT Re-evaluation Period.

                     The submittal does not qualify as an ATC but may be included in Proposer's Proposal because it appears to be within the requirements of the RFP.

                     The submittal does not qualify as an ATC and may not be included in the Proposal.

Please see the attached comments that were generated relative to the decision provided above.

Any resubmitted ATC shall be provided with the same three digit number with an alpha numeric letter starting with the letter "A" for the first resubmittal and "B" for a second submittal, etc., if necessary and address all comments for re-review.

The Georgia Department of Transportation appreciates the effort by your team to provide innovation and improve the overall success of the I-85 Express Lanes project.

Sincerely,

A handwritten signature in blue ink, consisting of several overlapping loops and a trailing line.

ATC Review Team Chair

Attachment: ATC Review Form

CC: Meg Pirkle, Chief Engineer – Memo only  
Joe Carpenter, Division Director of P3 – Memo only  
Darryl VanMeter, Asst. P3 Division Director / State Innovative Delivery Administrator  
General Files – Memo only

**CONFIDENTIAL**

**Attachment 1  
ATC Review Form**

**1. General comments:**

a. N/A

**2. Environmental comments:**

a. N/A

**3. Utilities comments:**

a. N/A

**4. Right of Way comments:**

a. N/A

**5. Geotechnical comments:**

a. N/A

**6. Roadway comments:**

a. N/A

**7. Drainage/Erosion Control comments:**

a. N/A

**8. Bridges/Structures comments:**

a. N/A

**9. ITS comments:**

a. N/A

**10. Signing and Marking comments:**

a. N/A

**11. Other**

- a. Revised pavement section must be submitted to the Pavement Design Committee for acceptance.
- b. All acceptance criteria for density, etc. must be met on construction.





**C. W. Matthews Contracting Co., Inc.**

**I-85 Widening Project**

**PI No. 110610; Gwinnett & Barrow Counties**

**ALTERNATIVE TECHNICAL CONCEPT CWM-015**

**CONFIDENTIAL ATC**

**Submitted: July 06, 2017**





***C. W. MATTHEWS CONTRACTING CO., INC.***

***Post Office Drawer 970***

***Marietta, Georgia 30061***

July 7, 2017

Mr. Chip Meeks  
Office of Innovative Delivery / P3 Administrator  
Georgia Department of Transportation  
One Georgia Center, 19<sup>th</sup> Floor  
600 West Peachtree Street, NW  
Atlanta, Georgia 30308

RE: I-85 Widening Project – Confidential ATC  
Alternative Technical Concept CWM-015 – Increase Maximum 25MM Layer Thickness

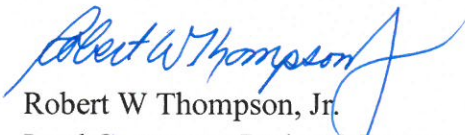
Mr. Meeks,

In accordance with the requirements established in the Instructions to Proposers issued May 26, 2017 and amended June 30, 2017, C. W. Matthews Contracting Co., Inc. hereby submits and requests review of the above referenced Alternative Technical Concept.

As requested, two hard copies and two electronic copies in PDF format, which includes all technical information, are provided with this submittal. If additional information or clarifications are needed, please do not hesitate to contact me at your convenience.

Sincerely,

C. W. Matthews Contracting Co., Inc.

  
Robert W. Thompson, Jr.  
Lead Contractor Project Manager

## ATC CWM-015 – Increase Maximum 25MM Layer Thickness

### I-85 Widening Design-Build Project – Confidential ATC

**Submittal Date: 07/07/2017**

#### **1. Description:**

*The C.W. Matthews Team (CWM)* proposes to increase the allowable maximum layer thickness for 25mm Superpave from 4 inches to 5 inches.

#### **2. Usage:**

The proposed ATC will be used throughout the limits of the project on the I-85 general purpose lane and inside shoulder widening.

#### **3. Contract Changes:**

The use of the proposed ATC deviates from the requirements of GDOT Standard Specifications Section 400-Hot Mix Asphaltic Concrete Construction, Table 5 which specifies the maximum compacted layer thickness by mix type. To implement this ATC, Table 5 will need to be modified as shown below. This deviation is indicated in Form P provided in Attachment A to this ATC.

**Table 5—Maximum Layer Thickness**

| Mix Type   | Minimum Layer Thickness                         | Maximum Layer Thickness                         | Maximum Total Thickness |
|--|---|---|-------------------------|
| 25 mm Superpave  | 2 1/2 in (64 mm)                                | 4 in (100 mm) * 5 in (125mm)-                   |                         |
| 19 mm Superpave  | 1 3/4 in (44 mm)                                | 3 in (75 mm) *                                  | —                       |
| 12.5 mm Superpave  | 1 3/8 in (35 mm)                                | 2 1/2 in (64 mm)**                              | 8 in (200 mm)           |
| 9.5 mm Superpave Type 2  | 1 1/8 in.(28 mm)                                | 1 1/2 in (38 mm)**                              | 4 in (100 mm)           |
| 9.5 mm Superpave Type 1  | 7/8 in (22 mm)                                  | 1 1/4 in (32 mm)                                | 4 in (100 mm)           |
| 4.75 mm Mix  | 3/4 in (19 mm)                                  | 1 1/8 in (28 mm)                                | 2 in (50 mm)            |
| 9.5 mm OGFC  | 55 lbs/yd <sup>2</sup> (30 kg/m <sup>2</sup> )  | 65 lbs/yd <sup>2</sup> (36 kg/m <sup>2</sup> )  | —                       |
| 12.5 mm OGFC   | 85 lbs/yd <sup>2</sup> (47 kg/m <sup>2</sup> )  | 95 lbs/yd <sup>2</sup> (53 kg/m <sup>2</sup> )  | —                       |
| 12.5 mm PEM  | 110 lbs/yd <sup>2</sup> (80 kg/m <sup>2</sup> ) | 165 lbs/yd <sup>2</sup> (90 kg/m <sup>2</sup> ) | —                       |
| 9.5 mm SMA   | 1 1/8 in (28 mm)                                | 1 1/2 in (38 mm)                                | 4 in (100 mm)           |
| 12.5 mm SMA  | 1 3/8 in (35 mm)                                | 3 in (75 mm)                                    | 6 in (150 mm)           |
| 19 mm SMA  | 1 3/4 in (44 mm)                                | 3 in (75 mm)                                    | —                       |
| * Allow up to 6 in (150 mm) per lift on trench widening. **Place 9.5 mm Superpave and 12.5 mm Superpave up to 4 in (100 mm) thick for driveway and side road transition. |   |   |                         |

#### **4. Justification:**

The project has a stated goal of opening various segments to traffic early, by increasing the allowable maximum layer thickness for 25mm Superpave Asphalt Base the daily production rate will increase proportionately. This increase in production will reduce the overall number of days required for paving without sacrificing quality or rideability of the final product. This will

## **ATC CWM-015 – Increase Maximum 25MM Layer Thickness**

### **I-85 Widening Design-Build Project – Confidential ATC**

**Submittal Date: 07/07/2017**

potentially allow segments to be opened earlier to traffic. The reduced number of days for paving will also result in a potential cost savings as detailed below.

#### **5. Impacts:**

The use of the proposed ATC would have the following impacts:

- *Vehicular Traffic* – No additional impacts to vehicular traffic
- *Environmental Impacts* – No additional impacts to environmental resources
- *Construction Schedule Impacts* – No additional impacts to the proposed construction schedule
- *Community Impacts* – No additional impacts to the Community
- *Safety and Life-Cycle Costs* – No additional impacts to safety or Life-Cycle Costs

#### **6. Cost Savings:**

The use of the proposed ATC will reduce the unit cost of the 25mm Asphalt Base. **CWM** estimates the potential unit cost savings due to the implementation of this ATC to be approximately \$2.00/TN.

While the overall cost to the project may not be reduced due to the variable scope nature of the procurement, the use of the proposed ATC will provide the opportunity to complete additional segments of work under the proposed \$115,000,000 Cap and potentially allow earlier completion of portions of the work while staying within the specified Maximum Annual Cumulative Payment Cap.

#### **7. Time Savings:**

The use of the proposed ATC will not significantly reduce the total amount of time required to construct this project, however, it may allow segments to be opened to traffic earlier.

#### **8. Risks:**

The use of the proposed ATC has the following risks:

- *Post Construction* – No additional risks would be realized by incorporation of this ATC
- *Operation* - No additional risks would be realized by incorporation of this ATC
- *Maintenance* - No additional risks would be realized by incorporation of this ATC

#### **9. Quality:**

The use of the proposed ATC will have no impact on the quality of the finished project.

## **ATC CWM-015 – Increase Maximum 25MM Layer Thickness**

### **I-85 Widening Design-Build Project – Confidential ATC**

**Submittal Date: 07/07/2017**

#### **10. Costs:**

No additional costs to GDOT or SRTA are anticipated by implementation of this ATC.

#### **11. Operations:**

The use of the proposed ATC will not result in any change to the operations requirements of the project.

#### **12. Maintenance:**

The use of the proposed ATC does not require any changes in maintenance requirements.

#### **13. Anticipated Life:**

The use of the proposed ATC does not result in any change to the anticipated life of the project.

#### **14. Right-of-Way:**

The use of the proposed ATC does not impact the required Right-of-Way to be purchased for the construction of the project.

#### **15. Past Use:**

The use of the proposed ATC was a standard practice until the issuance of the GDOT Standard Specifications 2013 Edition, with limited case-by-case usage since.

#### **16. Sale of Work Product:**

**CWM** is prepared to sell this ATC to GDOT in accordance with the terms of Section 3.8 of the ITP.

**ATC CWM-015 – Increase Maximum 25MM Layer Thickness**

**I-85 Widening Design-Build Project – Confidential ATC**

**Submittal Date: 07/07/2017**

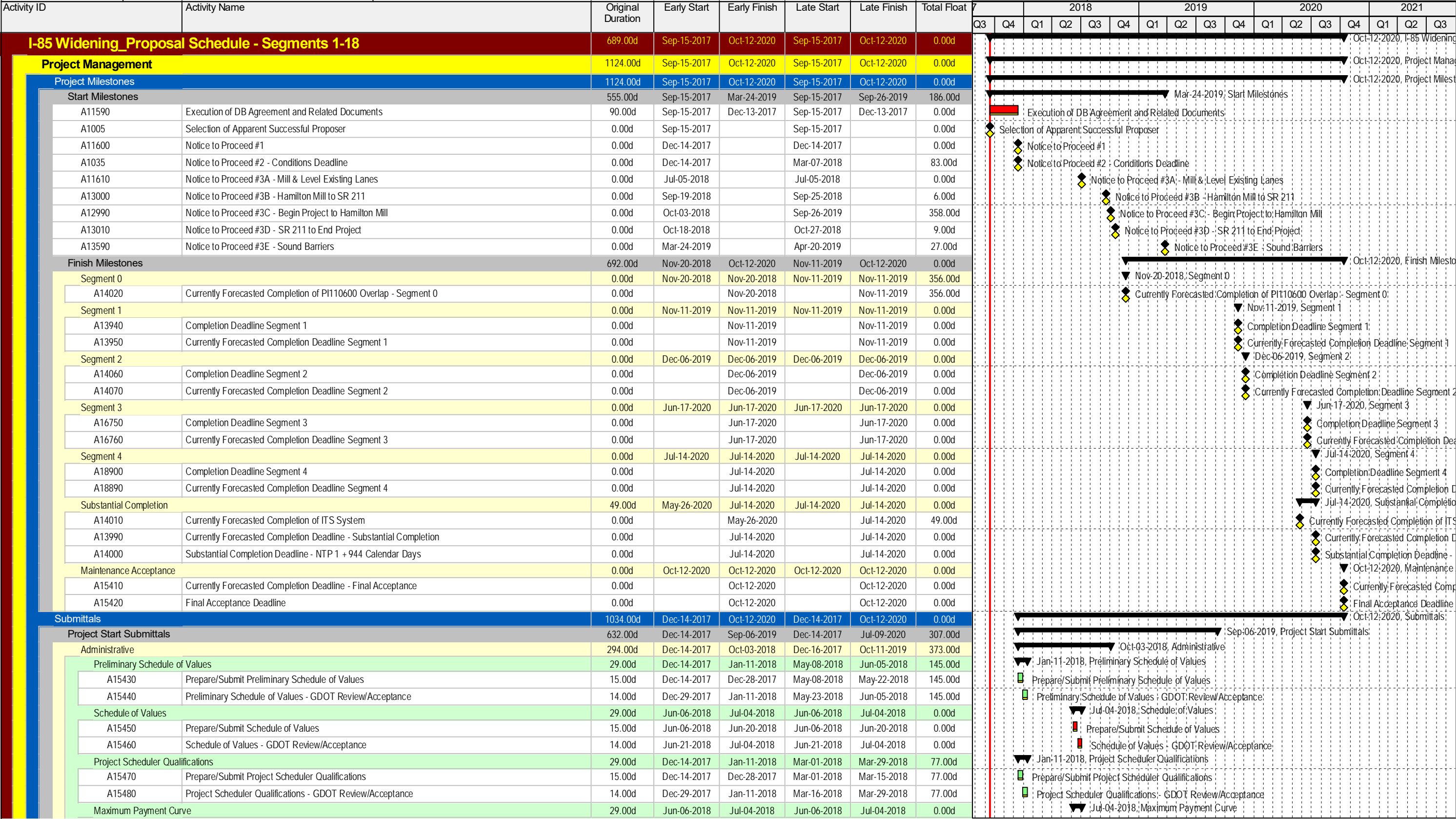
# ATTACHMENT A

## Form P



| <b>NEPA Study Impacts</b>               |  |                           |                        |  |
|---|--|---------------------------|------------------------|--|
| <b>No.</b>                              | <b>Area</b>                                      | <b>No Change Required</b> | <b>Change Required</b> | <b>If change required, provide a brief description of the proposed change.</b> |
| 1                                       | Purpose and Need                                 | X                         |                        |  |
| 2                                       | Project Termini                                  | X                         |                        |  |
| 3                                       | Property Acquisition                             | X                         |                        |  |
| 4                                       | Historic and Archeological                       | X                         |                        |  |
| 5                                       | Parklands and Other 4 (f) Resources              | X                         |                        |  |
| 6                                       | Air Quality                                      | X                         |                        |  |
| 7                                       | Noise  | X                         |                        |  |
| 8                                       | Hazardous Materials                              | X                         |                        |  |
| 9                                       | Water Resources/Water Quality                    | X                         |                        |  |
| 10                                      | Indirect and Cumulative Impacts                  | X                         |                        |  |
| 11                                      | Change in Selection of Preferred Alternative     | X                         |                        |  |
| 12                                      | Environmentally Sensitive Areas                  | X                         |                        |  |
| 13                                      | Environmental Justice                            | X                         |                        |  |
| 14                                      | Operations                                       | X                         |                        |  |
| 15                                      | Visual-Aesthetics                                | X                         |                        |  |
| 16                                      | Permits  | X                         |                        |  |
| 17                                      | Environmental Commitments (Green sheet)          | X                         |                        |  |
| <b>DB Contract – Volumes 2 and/or 3</b> |  | <b>No Change Required</b> | <b>Change Required</b> | <b>If change required, provide a brief description of the proposed change.</b> |
| 1                                       | Section 1- General                               | X                         |                        |  |
| 2                                       | Section 2- Project Management                    | X                         |                        |  |
| 3                                       | Section 3- Public Information and Communications | X                         |                        |  |
| 4                                       | Section 4- Environmental                         | X                         |                        |  |
| 5                                       | Section 6- Utilities                             | X                         |                        |  |
| 6                                       | Section 7- Right of Way                          | X                         |                        |  |

|   |  |                           |                        |  |
|---|--|---------------------------|------------------------|--|
| 7   | Section 8- Geotechnical                              | X                         |                        |  |
| 8   | Section 9- Surveying and Mapping                     | X                         |                        |  |
| 9   | Section 10- Grading                                  | X                         |                        |  |
| 10  | Section 11- Roadway                                  | X                         |                        |  |
| 11  | Section 12- Drainage                                 | X                         |                        |  |
| 12  | Section 13- Structures                               | X                         |                        |  |
| 13  | Section 14- Rail                                     | X                         |                        |  |
| 14  | Section 15- Landscape and Hardscape Enhancements     | X                         |                        |  |
| 15  | Section 16- Signing, Pavement Marking, Signalization | X                         |                        |  |
| 16  | Section 17- ITS                                      | X                         |                        |  |
| 17  | Section 18- Traffic Control                          | X                         |                        |  |
| 18  | Section 19- Maintenance                              | X                         |                        |  |
| 19  | Section 20- Bicycle and Pedestrian Facilities        | X                         |                        |  |
| 20  | Section 21- Tolling                                  | X                         |                        |  |
| 21  | Section 22- Operations                               | X                         |                        |  |
| 22  | Section 23-Submittals                                | X                         |                        |  |
| 23  | Any related Attachments                              | X                         |                        |  |
| <b>Design Exceptions and Variances</b>  |  | <b>No</b>                 | <b>Yes</b>             | <b>Description of each Design Exception or Variance</b>                        |
| 1   | Does the ATC require any Design Exceptions?          | X                         |                        |  |
| 2   | Does the ATC require any Design Variances?           | X                         |                        |  |
| <b>Volume 3 Manuals (list any Manuals which require changes including section number)</b> |  | <b>No Change Required</b> | <b>Change Required</b> | <b>If change required, provide a brief description of the proposed change.</b> |
|   | GDOT Std. Spec., 2013 - Sect. 400.3.5 Table 5        |                           | X                      | Increase maximum layer thickness for 25mm Superpave                            |
|   |  |                           |                        |  |
|   |  |                           |                        |  |
|   |  |                           |                        |  |
|   |  |                           |                        |  |




 Primary Baseline
  Critical Remaining Work
  Summary

 Actual Work
  Baseline Milestone

 Remaining Work
  Milestone

**I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow Counties**

Data Date: Sep-15-2017

|   |  |   |  |   |
|---|--|---|--|---|
|  Primary Baseline<br> Actual Work<br> Remaining Work |  Critical Remaining Work<br> Baseline Milestone<br> Milestone |  Summary | <p align="center"><b>I-85 Widening, Design-Build</b><br/> <b>PI No. 110610, Gwinnett &amp; Barrow Counties</b></p> | <p align="right">Data Date: Sep-15-2017</p> |
|---|--|---|--|---|



| Activity ID |  | Activity Name  | Original Duration  | Early Start | Early Finish | Late Start  | Late Finish | Total Float |         |    | 2018 |    |    |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |    |
|-------------|--|----------------|--|-------------|--------------|-------------|-------------|-------------|---------|----|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|
|             |  |                |  |             |              |             |             |             | Q3      | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 |
|             |  | A15820         | Construction Quality Management Plan - GDOT Review/Comment                         | 30.00d      | Apr-07-2018  | May-06-2018 | May-12-2018 | Jun-10-2018 | 35.00d  |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |
|             |  | A15830         | Construction Quality Management Plan -Address GDOT Comments                        | 10.00d      | May-07-2018  | May-16-2018 | Jun-11-2018 | Jun-20-2018 | 35.00d  |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |
|             |  | A15840         | Construction Quality Management Plan - GDOT Review/Acceptance                      | 14.00d      | May-17-2018  | May-30-2018 | Jun-21-2018 | Jul-04-2018 | 35.00d  |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |
|             |  | Shop Drawings  |  | 311.00d     | Apr-02-2018  | Feb-06-2019 | Sep-22-2018 | Apr-27-2020 | 446.00d |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |
|             |  | Structures     |  | 311.00d     | Apr-02-2018  | Feb-06-2019 | Sep-22-2018 | Apr-27-2020 | 446.00d |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |
|             |  | Beams          |  | 311.00d     | Apr-02-2018  | Feb-06-2019 | Oct-09-2018 | Apr-22-2020 | 441.00d |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |
|             |  | Spout Springs  |  | 128.00d     | Aug-28-2018  | Jan-02-2019 | Dec-10-2018 | Apr-16-2019 | 104.00d |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |
|             |  | A15850         | Supplier Prepare Beam Shop Drawings - Spout Springs                                | 20.00d      | Aug-28-2018  | Sep-16-2018 | Dec-10-2018 | Dec-29-2018 | 104.00d |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |
|             |  | A15860         | Beam Shop Drawings - DB Team/EOR Review/Approve - Spout Springs                    | 10.00d      | Sep-17-2018  | Sep-26-2018 | Dec-30-2018 | Jan-08-2019 | 104.00d |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |
|             |  | A15870         | Beam Shop Drawings - GDOT Review/Comment - Spout Springs                           | 14.00d      | Sep-27-2018  | Oct-10-2018 | Jan-09-2019 | Jan-22-2019 | 104.00d |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |
|             |  | A15880         | Beam Shop Drawings - Supplier Address Comments/EOR Review/Approve - Spout Springs  | 10.00d      | Oct-11-2018  | Oct-20-2018 | Jan-23-2019 | Feb-01-2019 | 104.00d |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |
|             |  | A15890         | Beam Shop Drawings - GDOT Review/Accept - Spout Springs                            | 14.00d      | Oct-21-2018  | Nov-03-2018 | Feb-02-2019 | Feb-15-2019 | 104.00d |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |
|             |  | A16600         | Fabricate and Deliver - Spout Springs Beams  | 60.00d      | Nov-04-2018  | Jan-02-2019 | Feb-16-2019 | Apr-16-2019 | 104.00d |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |
|             |  | Flowery Branch |  | 128.00d     | Apr-02-2018  | Aug-07-2018 | Dec-17-2019 | Apr-22-2020 | 624.00d |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |
|             |  | A15900         | Supplier Prepare Beam Shop Drawings - Flowery Branch                               | 20.00d      | Apr-02-2018  | Apr-21-2018 | Dec-17-2019 | Jan-05-2020 | 624.00d |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |
|             |  | A15910         | Beam Shop Drawings - DB Team/EOR Review/Approve - Flowery Branch                   | 10.00d      | Apr-22-2018  | May-01-2018 | Jan-06-2020 | Jan-15-2020 | 624.00d |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |
|             |  | A15920         | Beam Shop Drawings - GDOT Review/Comment - Flowery Branch                          | 14.00d      | May-02-2018  | May-15-2018 | Jan-16-2020 | Jan-29-2020 | 624.00d |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |
|             |  | A15930         | Beam Shop Drawings - Supplier Address Comments/EOR Review/Approve - Flowery Branch | 10.00d      | May-16-2018  | May-25-2018 | Jan-30-2020 | Feb-08-2020 | 624.00d |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |
|             |  | A15940         | Beam Shop Drawings - GDOT Review/Accept - Flowery Branch                           | 14.00d      | May-26-2018  | Jun-08-2018 | Feb-09-2020 | Feb-22-2020 | 624.00d |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |
|             |  | A16610         | Fabricate and Deliver - Flowery Branch Beams                                       | 60.00d      | Jun-09-2018  | Aug-07-2018 | Feb-23-2020 | Apr-22-2020 | 624.00d |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |
|             |  | Mulberry River |  | 128.00d     | Oct-02-2018  | Feb-06-2019 | Oct-09-2018 | Feb-13-2019 | 7.00d   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |
|             |  | A15950         | Supplier Prepare Beam Shop Drawings - Mulberry River                               | 20.00d      | Oct-02-2018  | Oct-21-2018 | Oct-09-2018 | Oct-28-2018 | 7.00d   |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |
|             |  | A15960         | Beam Shop Drawings - DB Team/EOR Review/Approve - Mulberry River                   | 10.00d      | Oct-22-2018  | Oct-31-2018 | Oct-29-2018 | Nov-07-2    |         |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |

 Primary Baseline
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**I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow Counties**

Data Date: Sep-15-2017

| Activity ID  |                | Activity Name   | Original Duration | Early Start | Early Finish | Late Start  | Late Finish | Total Float | 2018  |    |    |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |  |
|--|----------------|---|-------------------|-------------|--------------|-------------|-------------|-------------|---|----|----|----|------|----|----|----|------|----|----|----|------|----|--|
|  |                |   |                   |             |              |             |             |             | Q3  | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 |  |
| A16290<br>A16650<br>Mulberry River<br>A16300<br>A16310<br>A16320<br>A16330<br>A16340<br>A16660<br>Jesse Cronic<br>A16150<br>A16160<br>A16170<br>A16180<br>A16190<br>A16670<br>MSE Walls<br>Spout Springs<br>A16100<br>A16110<br>A16120<br>A16130<br>A16140<br>A16680<br>Jesse Cronic<br>A16200<br>A16210<br>A16220<br>A16230<br>A16240<br>A16690<br>Signs<br>Group 1 Overhead Signs<br>A16350<br>A16360<br>A16370<br>A16380<br>A16390<br>A16700<br>Group 2 Overhead Signs<br>A16400<br>A16410<br>A16420<br>A16430<br>A16440<br>A16710<br>Materials | A16290         | Metal Decking Shop Drawings - GDOT Review/Accept - Flowery Branch                           | 14.00d            | May-26-2018 | Jun-08-2018  | Feb-14-2020 | Feb-27-2020 | 629.00d     | Metal Decking Shop Drawings - GDOT Review/Accept - Flowery Branch                           |    |    |    |      |    |    |    |      |    |    |    |      |    |  |
|  | A16650         | Fabricate and Deliver - Flowery Branch Metal Decking  | 60.00d            | Jun-09-2018 | Aug-07-2018  | Feb-28-2020 | Apr-27-2020 | 629.00d     | Fabricate and Deliver - Flowery Branch Metal Decking  |    |    |    |      |    |    |    |      |    |    |    |      |    |  |
|  | Mulberry River |   | 128.00d           | Oct-02-2018 | Feb-06-2019  | Oct-17-2018 | Feb-21-2019 | 15.00d      | Feb-06-2019, Mulberry River   |    |    |    |      |    |    |    |      |    |    |    |      |    |  |
|  | A16300         | Supplier Prepare Metal Decking Shop Drawings - Mulberry River                               | 20.00d            | Oct-02-2018 | Oct-21-2018  | Oct-17-2018 | Nov-05-2018 | 15.00d      | Supplier Prepare Metal Decking Shop Drawings - Mulberry River                               |    |    |    |      |    |    |    |      |    |    |    |      |    |  |
|  | A16310         | Metal Decking Shop Drawings - DB Team/EOR Review/Approve - Mulberry River                   | 10.00d            | Oct-22-2018 | Oct-31-2018  | Nov-06-2018 | Nov-15-2018 | 15.00d      | Metal Decking Shop Drawings - DB Team/EOR Review/Approve - Mulberry River                   |    |    |    |      |    |    |    |      |    |    |    |      |    |  |
|  | A16320         | Metal Decking Shop Drawings - GDOT Review/Comment - Mulberry River                          | 14.00d            | Nov-01-2018 | Nov-14-2018  | Nov-16-2018 | Nov-29-2018 | 15.00d      | Metal Decking Shop Drawings - GDOT Review/Comment - Mulberry River                          |    |    |    |      |    |    |    |      |    |    |    |      |    |  |
|  | A16330         | Metal Decking Shop Drawings - Supplier Address Comments/EOR Review/Approve - Mulberry River | 10.00d            | Nov-15-2018 | Nov-24-2018  | Nov-30-2018 | Dec-09-2018 | 15.00d      | Metal Decking Shop Drawings - Supplier Address Comments/EOR Review/Approve - Mulberry River |    |    |    |      |    |    |    |      |    |    |    |      |    |  |
|  | A16340         | Metal Decking Shop Drawings - GDOT Review/Accept - Mulberry River                           | 14.00d            | Nov-25-2018 | Dec-08-2018  | Dec-10-2018 | Dec-23-2018 | 15.00d      | Metal Decking Shop Drawings - GDOT Review/Accept - Mulberry River                           |    |    |    |      |    |    |    |      |    |    |    |      |    |  |
|  | A16660         | Fabricate and Deliver - Mulberry River Metal Decking  | 60.00d            | Dec-09-2018 | Feb-06-2019  | Dec-24-2018 | Feb-21-2019 | 15.00d      | Fabricate and Deliver - Mulberry River Metal Decking  |    |    |    |      |    |    |    |      |    |    |    |      |    |  |
|  | Jesse Cronic   |   | 128.00d           | Sep-27-2018 | Feb-01-2019  | Jul-20-2019 | Nov-24-2019 | 296.00d     | Feb-01-2019, Jesse Cronic   |    |    |    |      |    |    |    |      |    |    |    |      |    |  |
|  | A16150         | Supplier Prepare Metal Decking Shop Drawings - Jesse Cronic                                 | 20.00d            | Sep-27-2018 | Oct-16-2018  | Jul-20-2019 | Aug-08-2019 | 296.00d     | Supplier Prepare Metal Decking Shop Drawings - Jesse Cronic                                 |    |    |    |      |    |    |    |      |    |    |    |      |    |  |
|  | A16160         | Metal Decking Shop Drawings - DB Team/EOR Review/Approve - Jesse Cronic                     | 10.00d            | Oct-17-2018 | Oct-26-2018  | Aug-09-2019 | Aug-18-2019 | 296.00d     | Metal Decking Shop Drawings - DB Team/EOR Review/Approve - Jesse Cronic                     |    |    |    |      |    |    |    |      |    |    |    |      |    |  |
|  | A16170         | Metal Decking Shop Drawings - GDOT Review/Comment - Jesse Cronic                            | 14.00d            | Oct-27-2018 | Nov-09-2018  | Aug-19-2019 | Sep-01-2019 | 296.00d     | Metal Decking Shop Drawings - GDOT Review/Comment - Jesse Cronic                            |    |    |    |      |    |    |    |      |    |    |    |      |    |  |
|  | A16180         | Metal Decking Shop Drawings - Supplier Address Comments/EOR Review/Approve - Jesse Cronic   | 10.00d            | Nov-10-2018 | Nov-19-2018  | Sep-02-2019 | Sep-11-2019 | 296.00d     | Metal Decking Shop Drawings - Supplier Address Comments/EOR Review/Approve - Jesse Cronic   |    |    |    |      |    |    |    |      |    |    |    |      |    |  |
|  | A16190         | Metal Decking Shop Drawings - GDOT Review/Accept - Jesse Cronic                             | 14.00d            | Nov-20-2018 | Dec-03-2018  | Sep-12-2019 | Sep-25-2019 | 296.00d     | Metal Decking Shop Drawings - GDOT Review/Accept - Jesse Cronic                             |    |    |    |      |    |    |    |      |    |    |    |      |    |  |
|  | A16670         | Fabricate and Deliver - Jesse Cronic Metal Decking  | 60.00d            | Dec-04-2018 | Feb-01-2019  | Sep-26-2019 | Nov-24-2019 | 296.00d     | Fabricate and Deliver - Jesse Cronic Metal Decking  |    |    |    |      |    |    |    |      |    |    |    |      |    |  |
|  | MSE Walls      |   | 163.00d           | Aug-28-2018 | Feb-06-2019  | Sep-22-2018 | Sep-15-2019 | 221.00d     | Feb-06-2019, MSE Walls  |    |    |    |      |    |    |    |      |    |    |    |      |    |  |
|  | Spout Springs  |   | 128.00d           | Aug-28-2018 | Jan-02-2019  | Sep-22-2018 | Jan-27-2019 | 25.00d      | Jan-02-2019, Spout Springs  |    |    |    |      |    |    |    |      |    |    |    |      |    |  |
|  | A16100         | Supplier Prepare MSE Wall Shop Drawings - Spout Springs                                     | 20.00d            | Aug-28-2018 | Sep-16-2018  | Sep-22-2018 | Oct-11-2018 | 25.00d      | Supplier Prepare MSE Wall Shop Drawings - Spout Springs                                     |    |    |    |      |    |    |    |      |    |    |    |      |    |  |
|  | A16110         | MSE Wall Shop Drawings - DB Team/EOR Review/Approve - Spout Springs                         | 10.00d            | Sep-17-2018 | Sep-26-2018  | Oct-12-2018 | Oct-21-2018 | 25.00d      | MSE Wall Shop Drawings - DB Team/EOR Review/Approve - Spout Springs                         |    |    |    |      |    |    |    |      |    |    |    |      |    |  |
|  | A16120         | MSE Wall Shop Drawings - GDOT Review/Comment - Spout Springs                                | 14.00d            | Sep-27-2018 | Oct-10-2018  | Oct-22-2018 | Nov-04-2018 | 25.00d      | MSE Wall Shop Drawings - GDOT Review/Comment - Spout Springs                                |    |    |    |      |    |    |    |      |    |    |    |      |    |  |
|  | A16130         | MSE Wall Shop Drawings - Supplier Address Comments/EOR Review/Approve - Spout Springs       | 10.00d            | Oct-11-2018 | Oct-20-2018  | Nov-05-2018 | Nov-14-2018 | 25.00d      | MSE Wall Shop Drawings - Supplier Address Comments/EOR Review/Approve - Spout Springs       |    |    |    |      |    |    |    |      |    |    |    |      |    |  |
|  | A16140         | MSE Wall Shop Drawings - GDOT Review/Accept - Spout Springs                                 | 14.00d            | Oct-21-2018 | Nov-03-2018  | Nov-15-2018 | Nov-28-2018 | 25.00d      | MSE Wall Shop Drawings - GDOT Review/Accept - Spout Springs                                 |    |    |    |      |    |    |    |      |    |    |    |      |    |  |
|  | A16680         | Fabricate and Deliver - Spout Springs MSE Wall Panels                                       | 60.00d            | Nov-04-2018 | Jan-02-2019  | Nov-29-2018 | Jan-27-2019 | 25.00d      | Fabricate and Deliver - Spout Springs MSE Wall Panels                                       |    |    |    |      |    |    |    |      |    |    |    |      |    |  |
|  | Jesse Cronic   |   | 128.00d           | Oct-02-2018 | Feb-06-2019  | May-11-2019 | Sep-15-2019 | 221.00d     | Feb-06-2019, Jesse Cronic   |    |    |    |      |    |    |    |      |    |    |    |      |    |  |
|  | A16200         | Supplier Prepare MSE Wall Shop Drawings - Jesse Cronic                                      | 20.00d            | Oct-02-2018 | Oct-21-2018  | May-11-2019 | May-30-2019 | 221.00d     | Supplier Prepare MSE Wall Shop Drawings - Jesse Cronic                                      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |
|  | A16210         | MSE Wall Shop Drawings - DB Team/EOR Review/Approve - Jesse Cronic                          |                   |             |              |             |             |             |   |    |    |    |      |    |    |    |      |    |    |    |      |    |  |

 Primary Baseline      Critical Remaining Work      Summary  
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**I-85 Widening, Design-Build  
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Data Date: Sep-15-2017

| Activity ID    |  |         | Activity Name                 | Original Duration  | Early Start | Early Finish | Late Start  | Late Finish                            | Total Float | 2018    |  |    |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |    |    |    |  |  |  |  |  |
|----------------|--|---------|-------------------------------|--|-------------|--------------|-------------|--|-------------|---------|--|----|----|------|----|----|----|------|----|----|----|------|----|----|----|----|--|--|--|--|--|
|                |  |         |                               |  |             |              |             |  |             | Q3      | Q4   | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3 |  |  |  |  |  |
| 1              | 1                                      | 1       | ITS Duct Bank Components      |  | 128.00d     | Aug-19-2018  | Dec-24-2018 | Jan-29-2019                            | Jun-05-2019 | 163.00d | Dec-24-2018; ITS Duct Bank Components  |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
|                |  |         | A16500                        | Subcontractor Prepare ITS Duct Bank Materials  | 20.00d      | Aug-19-2018  | Sep-07-2018 | Jan-29-2019                            | Feb-17-2019 | 163.00d | Subcontractor Prepare ITS Duct Bank Materials  |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
|                |  |         | A16510                        | ITS Duct Bank Materials - DB Team/EOR Review/Approve                                       | 10.00d      | Sep-08-2018  | Sep-17-2018 | Feb-18-2019                            | Feb-27-2019 | 163.00d | ITS Duct Bank Materials - DB Team/EOR Review/Approve                                       |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
|                |  |         | A16520                        | ITS Duct Bank Materials - GDOT Review/Comment  | 14.00d      | Sep-18-2018  | Oct-01-2018 | Feb-28-2019                            | Mar-13-2019 | 163.00d | ITS Duct Bank Materials - GDOT Review/Comment  |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
|                |  |         | A16530                        | ITS Duct Bank Materials - Subcontractor Address Comments/EOR Review/Approve                | 10.00d      | Oct-02-2018  | Oct-11-2018 | Mar-14-2019                            | Mar-23-2019 | 163.00d | ITS Duct Bank Materials - Subcontractor Address Comments/EOR Review/Approve                |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
|                |  |         | A16540                        | ITS Duct Bank Materials - GDOT Review/Accept   | 14.00d      | Oct-12-2018  | Oct-25-2018 | Mar-24-2019                            | Apr-06-2019 | 163.00d | ITS Duct Bank Materials - GDOT Review/Accept   |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
|                |  |         | A16730                        | Fabricate and Deliver - ITS Duct Bank Components   | 60.00d      | Oct-26-2018  | Dec-24-2018 | Apr-07-2019                            | Jun-05-2019 | 163.00d | Fabricate and Deliver - ITS Duct Bank Components   |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
|                |  |         | ITS Structures                |  | 128.00d     | Dec-25-2018  | May-01-2019 | Oct-28-2019                            | Mar-03-2020 | 307.00d | May-01-2019; ITS Structures  |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
|                |  |         | A16450                        | Subcontractor Prepare ITS Structure Shop Drawings  | 20.00d      | Dec-25-2018  | Jan-13-2019 | Oct-28-2019                            | Nov-16-2019 | 307.00d | Subcontractor Prepare ITS Structure Shop Drawings  |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
|                |  |         | A16460                        | ITS Structure Shop Drawings - DB Team/EOR Review/Approve                                   | 10.00d      | Jan-14-2019  | Jan-23-2019 | Nov-17-2019                            | Nov-26-2019 | 307.00d | ITS Structure Shop Drawings - DB Team/EOR Review/Approve                                   |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
|                |  |         | A16470                        | ITS Structure Shop Drawings - GDOT Review/Comment  | 14.00d      | Jan-24-2019  | Feb-06-2019 | Nov-27-2019                            | Dec-10-2019 | 307.00d | ITS Structure Shop Drawings - GDOT Review/Comment  |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
|                |  |         | A16480                        | ITS Structure Shop Drawings - Subcontractor Address Comments/EOR Review/Approve            | 10.00d      | Feb-07-2019  | Feb-16-2019 | Dec-11-2019                            | Dec-20-2019 | 307.00d | ITS Structure Shop Drawings - Subcontractor Address Comments/EOR Review/Approve            |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
|                |  |         | A16490                        | ITS Structure Shop Drawings - GDOT Review/Accept   | 14.00d      | Feb-17-2019  | Mar-02-2019 | Dec-21-2019                            | Jan-03-2020 | 307.00d | ITS Structure Shop Drawings - GDOT Review/Accept   |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
|                |  |         | A16720                        | Fabricate and Deliver - ITS Structures   | 60.00d      | Mar-03-2019  | May-01-2019 | Jan-04-2020                            | Mar-03-2020 | 307.00d | Fabricate and Deliver - ITS Structures   |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
|                |  |         | ITS Equipment                 |  | 128.00d     | May-02-2019  | Sep-06-2019 | Mar-04-2020                            | Jul-09-2020 | 307.00d | Sep-06-2019; ITS Equipment   |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
|                |  |         | A16550                        | Subcontractor Prepare ITS Equipment Materials  | 20.00d      | May-02-2019  | May-21-2019 | Mar-04-2020                            | Mar-23-2020 | 307.00d | Subcontractor Prepare ITS Equipment Materials  |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
|                |  |         | A16560                        | ITS Equipment Materials - DB Team/EOR Review/Approve                                       | 10.00d      | May-22-2019  | May-31-2019 | Mar-24-2020                            | Apr-02-2020 | 307.00d | ITS Equipment Materials - DB Team/EOR Review/Approve                                       |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
|                |  |         | A16570                        | ITS Equipment Materials - GDOT Review/Comment  | 14.00d      | Jun-01-2019  | Jun-14-2019 | Apr-03-2020                            | Apr-16-2020 | 307.00d | ITS Equipment Materials - GDOT Review/Comment  |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
|                |  |         | A16580                        | ITS Equipment Materials - Subcontractor Address Comments/EOR Review/Approve                | 10.00d      | Jun-15-2019  | Jun-24-2019 | Apr-17-2020                            | Apr-26-2020 | 307.00d | ITS Equipment Materials - Subcontractor Address Comments/EOR Review/Approve                |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
|                |  |         | A16590                        | ITS Equipment Materials - GDOT Review/Accept   | 14.00d      | Jun-25-2019  | Jul-08-2019 | Apr-27-2020                            | May-10-2020 | 307.00d | ITS Equipment Materials - GDOT Review/Accept   |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
|                |  |         | A16740                        | Fabricate and Deliver - ITS Equipment  | 60.00d      | Jul-09-2019  | Sep-06-2019 | May-11-2020                            | Jul-09-2020 | 307.00d | Fabricate and Deliver - ITS Equipment  |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
|                |  |         | Emergency Access Gate System  |  | 128.00d     | Apr-19-2018  | Aug-24-2018 | Jan-06-2019                            | May-13-2019 | 262.00d | Aug-24-2018; Emergency Access Gate System  |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
|                |  |         | A17350                        | Supplier Prepare Emergency Access Gate System Technical Data                               | 20.00d      | Apr-19-2018  | May-08-2018 | Jan-06-2019                            | Jan-25-2019 | 262.00d | Supplier Prepare Emergency Access Gate System Technical Data                               |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
|                |  |         | A17360                        | Emergency Access Gate System Technical Data - DB Team/EOR Review/Approve                   | 10.00d      | May-09-2018  | May-18-2018 | Jan-26-2019                            | Feb-04-2019 | 262.00d | Emergency Access Gate System Technical Data - DB Team/EOR Review/Approve                   |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
|                |  |         | A17370                        | Emergency Access Gate System Technical Data - GDOT Review/Comment                          | 14.00d      | May-19-2018  | Jun-01-2018 | Feb-05-2019                            | Feb-18-2019 | 262.00d | Emergency Access Gate System Technical Data - GDOT Review/Comment                          |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
|                |  |         | A17380                        | Emergency Access Gate System Technical Data - Supplier Address Comments/EOR Review/Approve | 10.00d      | Jun-02-2018  | Jun-11-2018 | Feb-19-2019                            | Feb-28-2019 | 262.00d | Emergency Access Gate System Technical Data - Supplier Address Comments/EOR Review/Approve |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
|                |  |         | A17390                        | Emergency Access Gate System Technical Data - GDOT Review/Accept                           | 14.00d      | Jun-12-2018  | Jun-25-2018 | Mar-01-2019                            | Mar-14-2019 | 262.00d | Emergency Access Gate System Technical Data - GDOT Review/Accept                           |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
|                |  |         | A17400                        | Fabricate and Deliver - Emergency Access Gate System                                       | 60.00d      | Jun-26-2018  | Aug-24-2018 | Mar-15-2019                            | May-13-2019 | 262.00d | Fabricate and Deliver - Emergency Access Gate System                                       |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
|                |  |         | Project Completion Submittals |  | 90.00d      | Jul-15-2020  | Oct-12-2020 | Jul-15-2020                            | Oct-12-2020 | 0.00d   | Oct-12-2020; Project Completion Submittals   |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
|                |  |         | As-Built Plans                |  | 90.00d      | Jul-15-2020  | Oct-12-2020 | Jul-15-2020                            | Oct-12-2020 | 0.00d   | Oct-12-2020; As-Built Plans  |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
|                |  |         | A15360                        | Prepare As-Built Plans - All Phases  | 30.00d      | Jul-15-2020  | Aug-13-2020 | Jul-15-2020                            | Aug-13-2020 | 0.00d   | Prepare As-Built Plans - All Phases  |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
|                |  |         | A15380                        | As-Built Plans - Utility Owner Review / Acceptance   | 30.00d      | Aug-14-2020  | Sep-12-2020 | Aug-14-2020                            | Sep-12-2020 | 0.00d   | As-Built Plans - Utility Owner Review / Acceptance   |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
|                |  |         | A15370                        | As-Built Plans - GDOT Review / Acceptance  | 14.00d      | Aug-14-2020  | Aug-27-2020 | Aug-30-2020                            | Sep-12-2020 | 16.00d  | As-Built Plans - GDOT Review / Acceptance  |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
|                |  |         | A15400                        | As-Built Plans - Address GDOT / Utility Owner Comments                                     | 15.00d      | Sep-13-2020  | Sep-27-2020 | Sep-13-2020                            | Sep-27-2020 | 0.00d   | As-Built Plans - Address GDOT / Utility Owner Comments                                     |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
|                |  |         | A15390                        | As-Built Plans - GDOT Acceptance   | 15.00d      | Sep-28-2020  | Oct-12-2020 | Sep-28-2020                            | Oct-12-2020 | 0.00d   | As-Built Plans - GDOT Acceptance   |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
|                |  |         | Design Project Management     |  | 202.00d     | Dec-14-2017  | Jul-03-2018 | Dec-15-2017                            | Jul-04-2018 | 1.00d   | Jul-03-2018; Design Project Management   |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
|                |  |         | A18940                        | Design Project Management - December 2017  | 17.00d      | Dec-14-2017  | Dec-30-2017 | Dec-15-2017                            | Dec-31-2017 | 1.00d   | Design Project Management - December 2017  |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
|                |  |         | A18950                        | Design Project Management - January 2018   | 31.00d      | Dec-31-2017  | Jan-30-2018 | Jan-01-2018                            | Jan-31-2018 | 1.00d   | Design Project Management - January 2018   |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
|                |  |         | A18960                        | Design Project Management - February 2018  | 28.00d      | Jan-31-2018  | Feb-27-2018 | Feb-01-2018                            | Feb-28-2018 | 1.00d   | Design Project Management - February 2018  |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
|                |  |         | A18970                        | Design Project Management - March 2018   | 31.00d      | Feb-28-2018  | Mar-30-2018 | Mar-01-2018                            | Mar-31-2018 | 1.00d   | Design Project Management - March 2018   |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
| A18980         | Design Project Management - April 2018 | 30.00d  | Mar-31-2018                   | Apr-29-2018  | Apr-01-2018 | Apr-30-2018  | 1.00d       | Design Project Management - April 2018 |             |         |  |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
| A18990         | Design Project Management - May 2018   | 31.00d  | Apr-30-2018                   | May-30-2018  | May-01-2018 | May-31-2018  | 1.00d       | Design Project Management - May 2018   |             |         |  |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
| A19000         | Design Project Management - June 2018  | 30.00d  | May-31-2018                   | Jun-29-2018  | Jun-01-2018 | Jun-30-2018  | 1.00d       | Design Project Management - June 2018  |             |         |  |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
| A19010         | Design Project Management - July 2018  | 4.00d   | Jun-30-2018                   | Jul-03-2018  | Jul-01-2018 | Jul-04-2018  | 1.00d       | Design Project Management - July 2018  |             |         |  |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
| Design         |  | 465.00d | Dec-14-2017                   | Mar-23-2019  | Dec-15-2017 | Sep-25-2019  | 186.00d     | Mar-23-2019; Design                    |             |         |  |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
| Entire Project |  | 465.00d | Dec-14-2017                   | Mar-23-2019  | Dec-15-2017 | Jun-06-2019  | 75.00d      | Mar-23-2019; Entire Project            |             |         |  |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |
| A18930         | Preliminay Design Services             | 10.00d  | Dec-14-2017                   | Dec-23-2017  | Dec-15-2017 | Dec-24-2017  | 1.00d       | Preliminay Design Services             |             |         |  |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |  |  |  |  |  |

 Primary Baseline
  Critical Remaining Work
  Summary

 Actual Work
  Baseline Milestone

 Remaining Work
  Milestone

**I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow Counties**

Data Date: Sep-15-2017

| Activity ID |   | Activity Name                    | Original Duration   | Early Start | Early Finish | Late Start  | Late Finish | Total Float | 2018   |   |    |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |  |  |  |
|-------------|---|----------------------------------|---|-------------|--------------|-------------|-------------|-------------|--------|---|----|----|------|----|----|----|------|----|----|----|------|----|--|--|--|
|             |   |                                  |   |             |              |             |             |             | Q3     | Q4  | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 |  |  |  |
| A           | 1 | Design Submittal Guide / Index   |   | 35.00d      | Dec-14-2017  | Jan-17-2018 | Dec-18-2017 | Jan-23-2018 | 6.00d  | Jan-17-2018, Design Submittal Guide / Index                         |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |
|             |   | A12730                           | Prepare Design Submittal Guide / Index                              | 7.00d       | Dec-14-2017  | Dec-20-2017 | Dec-18-2017 | Dec-24-2017 | 4.00d  | Prepare Design Submittal Guide / Index                              |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |
|             |   | A12740                           | Design Submittal Guide / Index - GDOT Review                        | 14.00d      | Dec-21-2017  | Jan-03-2018 | Dec-27-2017 | Jan-09-2018 | 6.00d  | Design Submittal Guide / Index - GDOT Review                        |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |
|             |   | A12750                           | Design Submittal Guide / Index - Address GDOT Comments & Resubmit   | 7.00d       | Jan-04-2018  | Jan-10-2018 | Jan-10-2018 | Jan-16-2018 | 6.00d  | Design Submittal Guide / Index - Address GDOT Comments & Resubmit   |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |
|             |   | A12760                           | Design Submittal Guide / Index - GDOT Approval                      | 7.00d       | Jan-11-2018  | Jan-17-2018 | Jan-17-2018 | Jan-23-2018 | 6.00d  | Design Submittal Guide / Index - GDOT Approval                      |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |
|             |   | Initial Project Design Data Book |   | 81.00d      | Dec-14-2017  | Mar-04-2018 | Dec-18-2017 | Mar-08-2018 | 4.00d  | Mar-04-2018, Initial Project Design Data Book                       |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |
|             |   | A17450                           | Prepare Initial Project Design Data Book                            | 30.00d      | Dec-14-2017  | Jan-12-2018 | Dec-18-2017 | Jan-16-2018 | 4.00d  | Prepare Initial Project Design Data Book                            |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |
|             |   | A17460                           | Initial Project Design Data Book - GDOT Review                      | 30.00d      | Jan-13-2018  | Feb-11-2018 | Jan-17-2018 | Feb-15-2018 | 4.00d  | Initial Project Design Data Book - GDOT Review                      |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |
|             |   | A17470                           | Initial Project Design Data Book - Address GDOT Comments & Resubmit | 7.00d       | Feb-12-2018  | Feb-18-2018 | Feb-16-2018 | Feb-22-2018 | 4.00d  | Initial Project Design Data Book - Address GDOT Comments & Resubmit |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |
|             |   | A17480                           | Initial Project Design Data Book - GDOT Approval                    | 14.00d      | Feb-19-2018  | Mar-04-2018 | Feb-23-2018 | Mar-08-2018 | 4.00d  | Initial Project Design Data Book - GDOT Approval                    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |
|             |   | Environmental                    |   | 444.00d     | Jan-04-2018  | Mar-23-2019 | Mar-04-2018 | Jun-06-2019 | 75.00d | Mar-23-2019, Environmental  |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |
|             |   | Environmental Change Table       |   | 91.00d      | Jan-04-2018  | Apr-04-2018 | Mar-04-2018 | Jun-05-2018 | 62.00d | Apr-04-2018, Environmental Change Table                             |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |
|             |   | #1 (Early Works Package)         |   | 28.00d      | Jan-04-2018  | Jan-31-2018 | Mar-04-2018 | Mar-31-2018 | 59.00d | Jan-31-2018, #1 (Early Works Package)                               |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |
|             |   | A13080                           | Prepare Environmental Change Table #1                               | 7.00d       | Jan-04-2018  | Jan-10-2018 | Mar-04-2018 | Mar-10-2018 | 59.00d | Prepare Environmental Change Table #1                               |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |
|             |   | A13090                           | Environmental Change Table #1 - GDOT Review                         | 7.00d       | Jan-11-2018  | Jan-17-2018 | Mar-11-2018 | Mar-17-2018 | 59.00d | Environmental Change Table #1 - GDOT Review                         |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |
|             |   | A13100                           | Environmental Change Table #1 - Address Comments                    | 7.00d       | Jan-18-2018  | Jan-24-2018 | Mar-18-2018 | Mar-24-2018 | 59.00d | Environmental Change Table #1 - Address Comments                    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |
|             |   | A13110                           | Environmental Change Table #1 - GDOT Review / Approval              | 7.00d       | Jan-25-2018  | Jan-31-2018 | Mar-25-2018 | Mar-31-2018 | 59.00d | Environmental Change Table #1 - GDOT Review / Approval              |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |
|             |   | #2 (Remainder of Project)        |   | 28.00d      | Mar-08-2018  | Apr-04-2018 | May-09-2018 | Jun-05-2018 | 62.00d | Apr-04-2018, #2 (Remainder of Project)                              |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |
|             |   | A13150                           | Prepare Environmental Change Table #2                               | 7.00d       | Mar-08-2018  | Mar-14-2018 | May-09-2018 | May-15-2018 | 62.00d | Prepare Environmental Change Table #2                               |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |
|             |   | A13160                           | Environmental Change Table #2 - GDOT Review                         | 7.00d       | Mar-15-2018  | Mar-21-2018 | May-16-2018 | May-22-2018 | 62.00d | Environmental Change Table #2 - GDOT Review                         |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |
|             |   | A13170                           | Environmental Change Table #2 - Address Comments                    | 7.00d       | Mar-22-2018  | Mar-28-2018 | May-23-2018 | May-29-2018 | 62.00d | Environmental Change Table #2 - Address Comments                    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |
|             |   | A13180                           | Environmental Change Table #2 - GDOT Review / Approval              | 7.00d       | Mar-29-2018  | Apr-04-2018 | May-30-2018 | Jun-05-2018 | 62.00d | Environmental Change Table #2 - GDOT Review / Approval              |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |
|             |   | NEPA Re-evaluation               |   | 416.00d     | Feb-01-2018  | Mar-23-2019 | Apr-01-2018 | Apr-19-2019 | 27.00d | Mar-23-2019, NEPA Re-evaluation                                     |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |
|             |   | #1 (Early Works Package)         |   | 95.00d      | Feb-01-2018  | May-06-2018 | Apr-01-2018 | Jul-04-2018 | 59.00d | May-06-2018, #1 (Early Works Package)                               |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |
|             |   | A1972                            | Prepare CE Re-evaluation #1 by GDOT                                 | 14.00d      | Feb-01-2018  | Feb-14-2018 | Apr-01-2018 | Apr-14-2018 | 59.00d | Prepare CE Re-evaluation #1 by GDOT                                 |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |
|             |   | A13120                           | CE Re-evaluation #1 - GDOT Review                                   | 30.00d      | Feb-15-2018  | Mar-16-2018 | Apr-15-2018 | May-14-2018 | 59.00d | CE Re-evaluation #1 - GDOT Review                                   |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |
|             |   | A13130                           | CE Re-evaluation #1 - GDOT Consultant Address GDOT Comments         | 7.00d       | Mar-17-2018  | Mar-23-2018 | May-15-2018 | May-21-2018 | 59.00d | CE Re-evaluation #1 - GDOT Consultant Address GDOT Comments         |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |
|             |   | A13140                           | CE Re-evaluation #1 - GDOT Approval and Submit to FHWA              | 14.00d      | Mar-24-2018  | Apr-06-2018 | May-22-2018 | Jun-04-2018 | 59.00d | CE Re-evaluation #1 - GDOT Approval and Submit to FHWA              |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |
|             |   | A1982                            | CE Re-evaluation #1 Approval by FHWA                                | 30.00d      | Apr-07-2018  | May-06-2018 | Jun-05-2018 | Jul-04-2018 | 59.00d | CE Re-evaluation #1 Approval by FHWA                                |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |
|             |   | #2 (Remainder of Project)        |   | 135.00d     | Apr-05-2018  | Aug-17-2018 | Jun-06-2018 | Sep-24-2018 | 38.00d | Aug-17-2018, #2 (Remainder of Project)                              |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |
|             |   | A13190                           | Prepare CE Re-evaluation #2 by GDOT                                 | 30.00d      | Apr-05-2018  | May-04-2018 | Jun-06-2018 | Jul-05-2018 | 62.00d | Prepare CE Re-evaluation #2 by GDOT                                 |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |

 Primary Baseline
  Critical Remaining Work
  Summary

 Actual Work
  Baseline Milestone

 Remaining Work
  Milestone

**I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow Counties**

Data Date: Sep-15-2017

| Activity ID |                        | Activity Name  | Original Duration | Early Start | Early Finish | Late Start  | Late Finish | Total Float | 2018 |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |    |
|-------------|------------------------|--|-------------------|-------------|--------------|-------------|-------------|-------------|------|----|------|----|----|----|------|----|----|----|------|----|----|
|             |                        |  |                   |             |              |             |             |             | Q3   | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 |
| A13260      | A13260                 | Ecology Addendum Approval by FHWA                                    | 30.00d            | Jul-19-2018 | Aug-17-2018  | Aug-26-2018 | Sep-24-2018 | 38.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
|             | 404 Permit             |  | 219.00d           | Apr-05-2018 | Nov-09-2018  | Oct-31-2018 | Jun-06-2019 | 209.00d     |      |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A11480                 | Prepare & Submit Nationwide Permit 23                                | 14.00d            | Apr-05-2018 | Apr-18-2018  | Oct-31-2018 | Nov-13-2018 | 209.00d     |      |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A13270                 | Nationwide Permit 23 - Review by GDOT                                | 30.00d            | Apr-19-2018 | May-18-2018  | Nov-14-2018 | Dec-13-2018 | 209.00d     |      |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A13280                 | Nationwide Permit 23 - Address GDOT Comments                         | 7.00d             | May-19-2018 | May-25-2018  | Dec-14-2018 | Dec-20-2018 | 209.00d     |      |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A13290                 | Nationwide Permit 23 - 2nd Review by GDOT                            | 14.00d            | May-26-2018 | Jun-08-2018  | Dec-21-2018 | Jan-03-2019 | 209.00d     |      |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A13300                 | Nationwide Permit 23 - Address GDOT 2nd Comments                     | 7.00d             | Jun-09-2018 | Jun-15-2018  | Jan-04-2019 | Jan-10-2019 | 209.00d     |      |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A13310                 | Nationwide Permit 23 - GDOT Approve and Submit to USACE              | 7.00d             | Jun-16-2018 | Jun-22-2018  | Jan-11-2019 | Jan-17-2019 | 209.00d     |      |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A11670                 | Nationwide Permit 23 Approval by USACE                               | 140.00d           | Jun-23-2018 | Nov-09-2018  | Jan-18-2019 | Jun-06-2019 | 209.00d     |      |    |      |    |    |    |      |    |    |    |      |    |    |
|             | Stream Buffer Variance |  | 245.00d           | Jul-20-2018 | Mar-21-2019  | Oct-05-2018 | Jun-06-2019 | 77.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A13320                 | Prepare & Submit Stream Buffer Variance Application                  | 30.00d            | Jul-20-2018 | Aug-18-2018  | Oct-05-2018 | Nov-03-2018 | 77.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A13340                 | Stream Buffer Variance Application - Review by GDOT                  | 30.00d            | Aug-19-2018 | Sep-17-2018  | Nov-04-2018 | Dec-03-2018 | 77.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A13350                 | Stream Buffer Variance Application - Address GDOT Comments           | 7.00d             | Sep-18-2018 | Sep-24-2018  | Dec-04-2018 | Dec-10-2018 | 77.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A13360                 | Stream Buffer Variance Application - 2nd Review by GDOT              | 14.00d            | Sep-25-2018 | Oct-08-2018  | Dec-11-2018 | Dec-24-2018 | 77.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A13370                 | Stream Buffer Variance Application - Address GDOT 2nd Comments       | 7.00d             | Oct-09-2018 | Oct-15-2018  | Dec-25-2018 | Dec-31-2018 | 77.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A13380                 | Stream Buffer Variance Application - GDOT Approve and Submit to GEPD | 7.00d             | Oct-16-2018 | Oct-22-2018  | Jan-01-2019 | Jan-07-2019 | 77.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A13330                 | Stream Buffer Variance Review & Issuance by GEPD                     | 150.00d           | Oct-23-2018 | Mar-21-2019  | Jan-08-2019 | Jun-06-2019 | 77.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
|             | Noise Study            |  | 316.00d           | Feb-20-2018 | Jan-01-2019  | Mar-19-2018 | Apr-19-2019 | 108.00d     |      |    |      |    |    |    |      |    |    |    |      |    |    |
|             | Final Noise Modeling   |  | 95.00d            | Feb-20-2018 | May-25-2018  | Mar-19-2018 | Jun-21-2018 | 27.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A13390                 | Prepare Final Noise Model  | 30.00d            | Feb-20-2018 | Mar-21-2018  | Mar-19-2018 | Apr-17-2018 | 27.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A13400                 | Final Noise Model - GDOT Review                                      | 30.00d            | Mar-22-2018 | Apr-20-2018  | Apr-18-2018 | May-17-2018 | 27.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A13410                 | Final Noise Model - Address GDOT Comments                            | 7.00d             | Apr-21-2018 | Apr-27-2018  | May-18-2018 | May-24-2018 | 27.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A13420                 | Final Noise Model - 2nd Review by GDOT                               | 14.00d            | Apr-28-2018 | May-11-2018  | May-25-2018 | Jun-07-2018 | 27.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A13430                 | Final Noise Model - Address GDOT 2nd Comments                        | 7.00d             | May-12-2018 | May-18-2018  | Jun-08-2018 | Jun-14-2018 | 27.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A13440                 | Final Noise Model - GDOT Approval                                    | 7.00d             | May-19-2018 |              |             |             |             |      |    |      |    |    |    |      |    |    |    |      |    |    |
















































 Primary Baseline
  Critical Remaining Work
  Summary

 Actual Work
  Baseline Milestone

 Remaining Work
  Milestone

**I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow Counties**

Data Date: Sep-15-2017

| Activity ID | Activity Name  | Original Duration   | Early Start | Early Finish | Late Start  | Late Finish | Total Float | 2018        |         | 2019  |   |   |  | 2020 |    |    |    | 2021 |    |    |  |  |  |  |  |  |  |
|-------------|--|---|-------------|--------------|-------------|-------------|-------------|-------------|---------|---|---|---|--|------|----|----|----|------|----|----|--|--|--|--|--|--|--|
|             |  |   |             |              |             |             |             | Q3          | Q4      | Q1  | Q2  | Q3  | Q4   | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 |  |  |  |  |  |  |  |
| <div></div> | A11910   | Overhead/SUE Info to Utilities - URPN Letter 1a - Utility Company Review          | 30.00d      | Feb-12-2018  | Mar-13-2018 | Feb-18-2018 | Mar-19-2018 | 6.00d       |         |   |    | Overhead/SUE Info to Utilities - URPN Letter 1a - Utility Company Review              |  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | A8300  | Relocated Utility Plans - URPN Letter 2   | 10.00d      | Mar-14-2018  | Mar-23-2018 | Mar-20-2018 | Mar-29-2018 | 6.00d       |         |   |    | Relocated Utility Plans - URPN Letter 2   |  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | A8310  | Relocated Utility Plans - URPN Letter 2 - GDOT Review                             | 5.00d       | Mar-24-2018  | Mar-28-2018 | Jun-23-2018 | Jun-27-2018 | 91.00d      |         |   |    | Relocated Utility Plans - URPN Letter 2 - GDOT Review                                 |  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | A8320  | Relocated Utility Plans - URPN Letter 2 - Utility Company Review                  | 90.00d      | Mar-24-2018  | Jun-21-2018 | Mar-30-2018 | Jun-27-2018 | 6.00d       |         |   |    | Relocated Utility Plans - URPN Letter 2 - Utility Company Review                      |  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | A11860   | Prepare Utility Retention Request   | 5.00d       | Jun-17-2018  | Jun-21-2018 | Sep-06-2018 | Sep-10-2018 | 81.00d      |         |   |    | Prepare Utility Retention Request   |  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | A11870   | GDOT Review Utility Retention Request   | 14.00d      | Jun-22-2018  | Jul-05-2018 | Sep-11-2018 | Sep-24-2018 | 81.00d      |         |   |    | GDOT Review Utility Retention Request   |  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | A8325  | Prepare Utility Plans & Agreements  | 14.00d      | Jun-22-2018  | Jul-05-2018 | Jun-28-2018 | Jul-11-2018 | 6.00d       |         |   |    | Prepare Utility Plans & Agreements  |  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | A8326  | Utility Plans & Agreements - GDOT Review  | 30.00d      | Jul-06-2018  | Aug-04-2018 | Aug-11-2018 | Sep-09-2018 | 36.00d      |         |   |    | Utility Plans & Agreements - GDOT Review  |  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | A8327  | Utility Plans & Agreements - Utility Review                                       | 60.00d      | Jul-06-2018  | Sep-03-2018 | Jul-12-2018 | Sep-09-2018 | 6.00d       |         |   |    | Utility Plans & Agreements - Utility Review   |  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | A8330  | Preliminary Utility Status Report - URPN Letter 6 - Notice to Proceed with Permit | 5.00d       | Sep-04-2018  | Sep-08-2018 | Sep-10-2018 | Sep-14-2018 | 6.00d       |         |   |    | Preliminary Utility Status Report - URPN Letter 6 - Notice to Proceed with Permit     |  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | A11840   | Preliminary Utility Status Report - URPN Letter 6 - GDOT Review                   | 10.00d      | Sep-09-2018  | Sep-18-2018 | Sep-15-2018 | Sep-24-2018 | 6.00d       |         |   |    | Preliminary Utility Status Report - URPN Letter 6 - GDOT Review                       |  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | A11850   | Preliminary Utility Status Report - URPN Letter 6 - Utility Company Review        | 5.00d       | Sep-09-2018  | Sep-13-2018 | Sep-20-2018 | Sep-24-2018 | 11.00d      |         |   |    | Preliminary Utility Status Report - URPN Letter 6 - Utility Company Review            |  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | A11880   | GDOT Issues GUPS Permit   | 0.00d       |              | Sep-18-2018 |             | Sep-24-2018 | 6.00d       |         |   |    | GDOT Issues GUPS Permit   |  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | Survey   |   |             | 60.00d       | Dec-14-2017 | Feb-11-2018 | Mar-23-2018 | May-21-2018 | 99.00d  |   |   |    | Feb-11-2018, Survey                                  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | A11660   | Prepare Survey Control Package  | 30.00d      | Dec-14-2017  | Jan-12-2018 | Mar-23-2018 | Apr-21-2018 | 99.00d      |         |   |    | Prepare Survey Control Package  |  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | A12890   | Prepare Topographic Mapping Package   | 30.00d      | Dec-14-2017  | Jan-12-2018 | Apr-08-2018 | May-07-2018 | 115.00d     |         |   |    | Prepare Topographic Mapping Package   |  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | A12880   | Survey Control Package - GDOT Review / Acceptance                                 | 30.00d      | Jan-13-2018  | Feb-11-2018 | Apr-22-2018 | May-21-2018 | 99.00d      |         |   |    | Survey Control Package - GDOT Review / Acceptance                                     |  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | A12900   | Topographic Mapping - GDOT Review / Acceptance                                    | 14.00d      | Jan-13-2018  | Jan-26-2018 | May-08-2018 | May-21-2018 | 115.00d     |         |   |    | Topographic Mapping - GDOT Review / Acceptance  |  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | Concept Layout Plan  |   |             | 68.00d       | Dec-14-2017 | Feb-19-2018 | Dec-18-2017 | Mar-08-2018 | 17.00d  |   |   |    | Feb-19-2018, Concept Layout Plan                     |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | A11490   | Prepare Concept Layout Plan Submittal   | 7.00d       | Dec-14-2017  | Dec-20-2017 | Dec-18-2017 | Dec-24-2017 | 4.00d       |         |   |    | Prepare Concept Layout Plan Submittal   |  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | A11500   | Concept Layout Plan - GDOT Review   | 30.00d      | Dec-24-2017  | Jan-22-2018 | Dec-25-2017 | Jan-23-2018 | 1.00d       |         |   |    | Concept Layout Plan - GDOT Review   |  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | A11680   | Concept Layout Plan - Address GDOT Comments & Resubmit                            | 14.00d      | Jan-23-2018  | Feb-05-2018 | Jan-24-2018 | Feb-06-2018 | 1.00d       |         |   |    | Concept Layout Plan - Address GDOT Comments & Resubmit                                |  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | A11690   | Concept Layout Plan Resubmittal - GDOT Review                                     | 14.00d      | Feb-06-2018  | Feb-19-2018 | Feb-23-2018 | Mar-08-2018 | 17.00d      |         |   |    | Concept Layout Plan Resubmittal - GDOT Review   |  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | ITS  |   |             | 180.00d      | Feb-19-2018 | Aug-18-2018 | Aug-01-2018 | Jan-28-2019 | 163.00d |   |   |   | Aug-18-2018, ITS                                     |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | A11920   | ITS Design Workshop   | 0.00d       |              | Feb-19-2018 |             | Aug-01-2018 | 163.00d     |         |   |  | ITS Design Workshop   |  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | A9540  | Prepare 3D Visualization of CCTV Camera Coverage Submittal                        | 30.00d      | Feb-20-2018  | Mar-21-2018 | Aug-02-2018 | Aug-31-2018 | 163.00d     |         |   |  | Prepare 3D Visualization of CCTV Camera Coverage Submittal                            |  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | A9550  | 3D Visualization of CCTV Coverage - GDOT Review                                   | 30.00d      | Mar-22-2018  | Apr-20-2018 | Sep-01-2018 | Sep-30-2018 | 163.00d     |         |   |  | 3D Visualization of CCTV Coverage - GDOT Review                                       |  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | A9560  | Preliminary ITS Plans Submittal   | 30.00d      | Apr-21-2018  | May-20-2018 | Oct-01-2018 | Oct-30-2018 | 163.00d     |         |   |  | Preliminary ITS Plans Submittal   |  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | A9570  | Preliminary ITS Plans - GDOT Review   | 30.00d      | May-21-2018  | Jun-19-2018 | Oct-31-2018 | Nov-29-2018 | 163.00d     |         |   |  | Preliminary ITS Plans - GDOT Review   |  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | A9580  | Final ITS Plans Submittal   | 30.00d      | Jun-20-2018  | Jul-19-2018 | Nov-30-2018 | Dec-29-2018 | 163.00d     |         |   |  | Final ITS Plans Submittal   |  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | A9590  | Final ITS Plans - GDOT Review   | 30.00d      | Jul-20-2018  | Aug-18-2018 | Dec-30-2018 | Jan-28-2019 | 163.00d     |         |   |  | Final ITS Plans - GDOT Review   |  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | A11930   | ITS Plans RFC   | 0.00d       |              | Aug-18-2018 |             | Jan-28-2019 | 163.00d     |         |   |  | ITS Plans RFC   |  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | Transportation Management Plan   |   |             | 120.00d      | Dec-14-2017 | Apr-12-2018 | Mar-07-2018 | Jul-04-2018 | 83.00d  |   |   |  | Apr-12-2018, Transportation Mahagement Plan          |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | A11440   | Transportation Management Plan - Submittal  | 90.00d      | Dec-14-2017  | Mar-13-2018 | Mar-07-2018 | Jun-04-2018 | 83.00d      |         |   |  | Transportation Management Plan - Submittal  |  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | A11450   | Transortation Management Plan - GDOT Review /Acceptance                           | 30.00d      | Mar-14-2018  | Apr-12-2018 | Jun-05-2018 | Jul-04-2018 | 83.00d      |         |   |  | Transportation Management Plan - GDOT Review /Acceptance                              |  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | Emergency Access Configuration/Interval                                |   |             | 58.00d       | Feb-20-2018 | Apr-18-2018 | Nov-09-2018 | Jan-05-2019 | 262.00d |   |   |  | Apr-18-2018, Emergency Access Configuration/Interval |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | A17410   | Prepare Emergency Access Configuration/Interval Plan Submittal                    | 30.00d      | Feb-20-2018  | Mar-21-2018 | Nov-09-2018 | Dec-08-2018 | 262.00d     |         |   |  | Prepare Emergency Access Configuration/Interval Plan Submittal                        |  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | A17420   | Emergency Access Configuration/Interval Plan - GDOT Review                        | 14.00d      | Mar-22-2018  | Apr-04-2018 | Dec-09-2018 | Dec-22-2018 | 262.00d     |         |   |  | Emergency Access Configuration/Interval Plan - GDOT Review                            |  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | A17430   | Emergency Access Configuration/Interval Plan - Address GDOT Comments & Resubmit   | 7.00d       | Apr-05-2018  | Apr-11-2018 | Dec-23-2018 | Dec-29-2018 | 262.00d     |         |   |  | Emergency Access Configuration/Interval Plan - Address GDOT Comments & Resubmit       |  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | A17440   | Emergency Access Configuration/Interval Plan Resubmittal - GDOT Review            | 7.00d       | Apr-12-2018  | Apr-18-2018 | Dec-30-2018 | Jan-05-2019 | 262.00d     |         |   |  | Emergency Access Configuration/Interval Plan Resubmittal - GDOT Review                |  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | Begin Project to Hamilton Mill   |   |             | 171.00d      | Dec-14-2017 | Jun-02-2018 | Sep-01-2018 | Sep-25-2019 | 480.00d |   |   |  | Jun-02-2018, Begin Project to Hamilton Mill          |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | Roadway  |   |             | 164.00d      | Dec-21-2017 | Jun-02-2018 | Jun-16-2019 | Sep-25-2019 | 480.00d |   |   |  | Jun-02-2018, Roadway                                 |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | A12650   | Prepare Preliminary Roadway Design Plans - Begin to Hamilton Mill                 | 30.00d      | Dec-21-2017  | Jan-19-2018 | Jun-16-2019 | Jul-15-2019 | 542.00d     |         |   |  | Prepare Preliminary Roadway Design Plans - Begin to Hamilton Mill                     |  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | A12660   | Preliminary Roadway Design Plans - GDOT Review - Begin to Hamilton Mill           | 14.00d      | Mar-08-2018  | Mar-21-2018 | Jul-16-2019 | Jul-29-2019 | 495.00d     |         |   |  | Preliminary Roadway Design Plans - GDOT Review - Begin to Hamilton Mill               |  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | A12000   | Prepare Final Roadway Design Plans - Begin to Hamilton Mill                       | 30.00d      | Mar-22-2018  | Apr-20-2018 | Jul-30-2019 | Aug-28-2019 | 495.00d     |         |   |  | Prepare Final Roadway Design Plans - Begin to Hamilton Mill                           |  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
|             | A12010   | Final Roadway Design Plans - GDOT Review / Acceptance - Begin to Hamilton Mill    | 14.00d      | Apr-21-2018  | May-04-2018 | Aug-29-2019 | Sep-11-2019 | 495.00d     |         |   |  | Final Roadway Design Plans - GDOT Review / Acceptance - Begin to Hamilton Mill        |  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |
| A12020      | Final Roadway Design Plans - Address Comments - Begin to Hamilton Mill | 14.00d  | May-05-2018 | May-18-2018  | Sep-12-2019 | Sep-25-2019 | 495.00d     |             |         |  | Final Roadway Design Plans - Address Comments - Begin to Hamilton Mill                |   |  |      |    |    |    |      |    |    |  |  |  |  |  |  |  |

 Primary Baseline
  Critical Remaining Work
  Summary

 Actual Work
  Baseline Milestone

 Remaining Work
  Milestone

**I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow Counties**

Data Date: Sep-15-2017

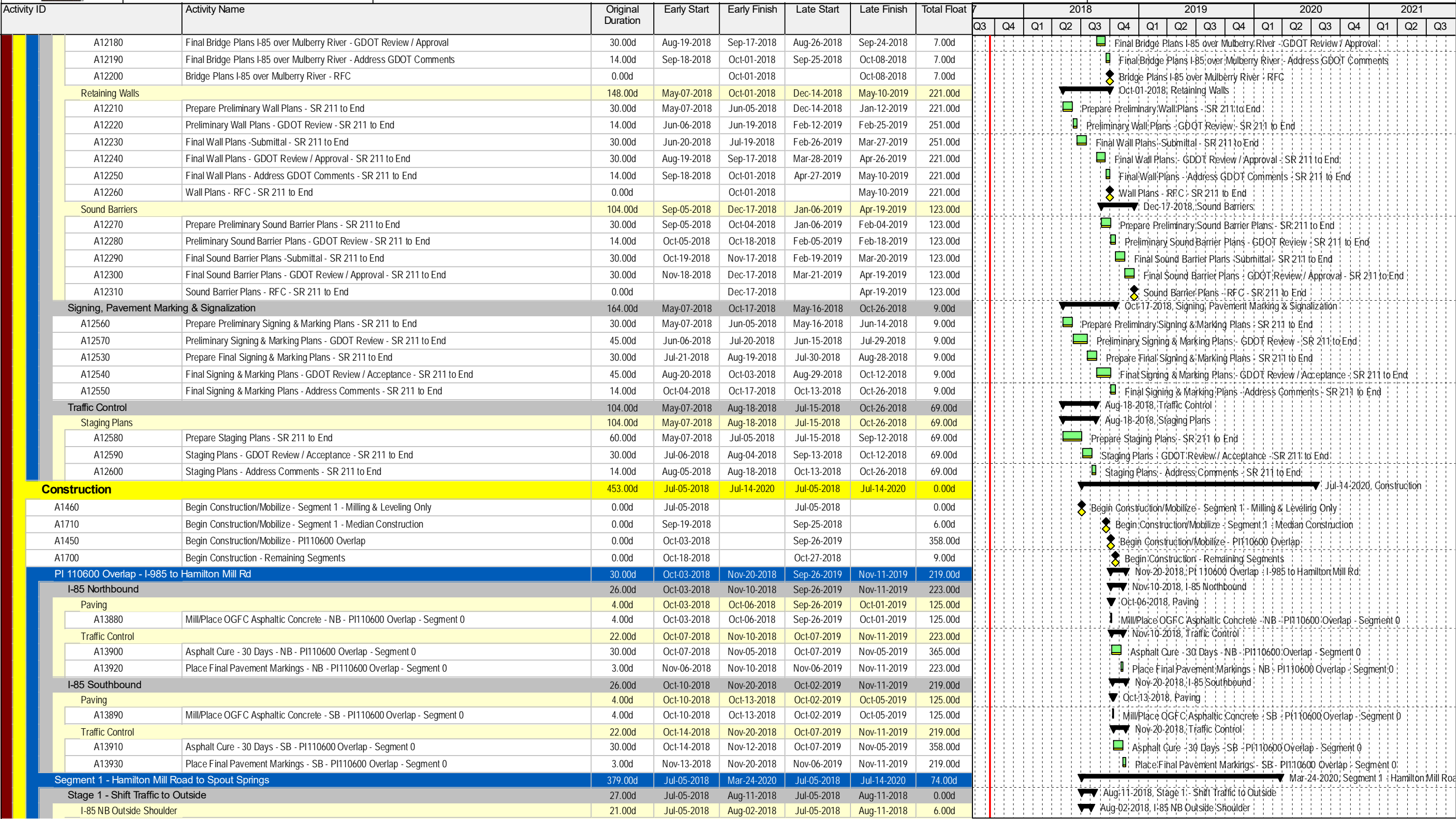


 Primary Baseline      Critical Remaining Work      Summary  
 Actual Work      Baseline Milestone  
 Remaining Work      Milestone

**I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow Counties**

Data Date: Sep-15-2017

C. W. Matthews Contracting Co., Inc.



 Primary Baseline
  Critical Remaining Work
  Summary

 Actual Work
  Baseline Milestone

 Remaining Work
  Milestone

**I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow Counties**

Data Date: Sep-15-2017

| Activity ID                  | Activity Name            | Original Duration  | Early Start | Early Finish | Late Start  | Late Finish | Total Float | 2018   |    | 2018 |    | 2019 |    | 2019 |    | 2020 |    | 2020 |    | 2021 |    | 2021 |    |
|------------------------------|--------------------------|--|-------------|--------------|-------------|-------------|-------------|--------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|
|                              |                          |  |             |              |             |             |             | Q3     | Q4 | Q1   | Q2 | Q3   | Q4 | Q1   | Q2 | Q3   | Q4 | Q1   | Q2 | Q3   | Q4 | Q1   | Q2 |
|                              | Paving                   | 21.00d   | Jul-05-2018 | Aug-02-2018  | Jul-05-2018 | Aug-11-2018 | 6.00d       |        |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
|                              | A15310                   | Mill Existing Lanes 3" - NB - Segment 1  | 6.00d       | Jul-05-2018  | Jul-11-2018 | Jul-05-2018 | Jul-11-2018 | 0.00d  |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
|                              | A1410                    | Place Asphaltic Leveling for Cross-Slope Correction - Section 1 & 2 - NB - Segment 1 | 15.00d      | Jul-12-2018  | Aug-02-2018 | Jul-19-2018 | Aug-11-2018 | 6.00d  |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
|                              | I-85 SB Outside Shoulder | 21.00d   | Jul-12-2018 | Aug-11-2018  | Jul-12-2018 | Aug-11-2018 | 0.00d       |        |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
|                              | Paving                   | 21.00d   | Jul-12-2018 | Aug-11-2018  | Jul-12-2018 | Aug-11-2018 | 0.00d       |        |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
|                              | A15320                   | Mill Existing Lanes 3" - SB - Segment 1  | 6.00d       | Jul-12-2018  | Jul-18-2018 | Jul-12-2018 | Jul-18-2018 | 0.00d  |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
|                              | A13650                   | Place Asphaltic Leveling for Cross-Slope Correction - Section 1 & 2 - SB - Segment 1 | 15.00d      | Jul-19-2018  | Aug-11-2018 | Jul-19-2018 | Aug-11-2018 | 0.00d  |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
| Stage 2 - Construct Median   |                          | 148.00d  | Sep-19-2018 | Jun-01-2019  | Sep-25-2018 | Sep-04-2019 | 65.00d      |        |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
| Section 1 - 420+00 to 472+80 |                          | 74.00d   | Sep-19-2018 | Feb-01-2019  | Sep-25-2018 | Feb-08-2019 | 4.00d       |        |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
| Traffic Control              |                          | 1.00d  | Sep-19-2018 | Sep-19-2018  | Sep-25-2018 | Sep-25-2018 | 4.00d       |        |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
|                              | A1230                    | Install Temporary Barrier NB - Section 1   | 1.00d       | Sep-19-2018  | Sep-19-2018 | Sep-25-2018 | Sep-25-2018 | 4.00d  |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
|                              | A1240                    | Install Temporary Barrier SB - Section 1   | 1.00d       | Sep-19-2018  | Sep-19-2018 | Sep-25-2018 | Sep-25-2018 | 4.00d  |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
| Grading                      |                          | 39.00d   | Sep-20-2018 | Nov-16-2018  | Sep-26-2018 | Dec-13-2018 | 14.00d      |        |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
| Rough Grade                  |                          | 32.00d   | Sep-20-2018 | Nov-03-2018  | Sep-26-2018 | Nov-10-2018 | 4.00d       |        |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
|                              | A1000                    | Remove Cable Barrier & Mow Strip - Section 1   | 4.00d       | Sep-20-2018  | Sep-25-2018 | Sep-26-2018 | Sep-29-2018 | 4.00d  |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
|                              | A1010                    | Remove Top Soil - Section 1  | 8.00d       | Sep-26-2018  | Oct-04-2018 | Oct-01-2018 | Oct-11-2018 | 4.00d  |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
|                              | A1020                    | Rough Grade to Subgrade NB - Section 1   | 10.00d      | Oct-05-2018  | Oct-19-2018 | Oct-12-2018 | Oct-24-2018 | 4.00d  |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
|                              | A1030                    | Rough Grade to Subgrade SB - Section 1   | 10.00d      | Oct-20-2018  | Nov-03-2018 | Oct-26-2018 | Nov-10-2018 | 4.00d  |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
| Fine Grade                   |                          | 17.00d   | Oct-20-2018 | Nov-16-2018  | Nov-12-2018 | Dec-13-2018 | 14.00d      |        |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
|                              | A1040                    | Fine Grade Subgrade NB - Section 1   | 7.00d       | Oct-20-2018  | Oct-29-2018 | Nov-12-2018 | Nov-28-2018 | 14.00d |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
|                              | A1050                    | Fine Grade Subgrade SB - Section 1   | 7.00d       | Nov-05-2018  | Nov-16-2018 | Dec-04-2018 | Dec-13-2018 | 14.00d |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
| Drainage                     |                          | 2.00d  | Oct-05-2018 | Oct-06-2018  | Nov-09-2018 | Nov-10-2018 | 22.00d      |        |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
| Storm Drain Pipe             |                          | 1.00d  | Oct-05-2018 | Oct-05-2018  | Nov-09-2018 | Nov-09-2018 | 22.00d      |        |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
|                              | A1060                    | Install A-1 to A-2 - Section 1   | 1.00d       | Oct-05-2018  | Oct-05-2018 | Nov-09-2018 | Nov-09-2018 | 22.00d |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
| Drainage Structures          |                          | 1.00d  | Oct-06-2018 | Oct-06-2018  | Nov-10-2018 | Nov-10-2018 | 22.00d      |        |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
|                              | A1070                    | Construct A-Series Drop Inlets - Section 1   | 1.00d       | Oct-06-2018  | Oct-06-2018 | Nov-10-2018 | Nov-10-2018 | 22.00d |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
| Signs                        |                          | 6.00d  | Oct-05-2018 | Oct-13-2018  | Nov-02-2018 | Nov-10-2018 | 18.00d      |        |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
| Foundations                  |                          | 6.00d  | Oct-05-2018 | Oct-13-2018  | Nov-02-2018 | Nov-10-2018 | 18.00d      |        |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
|                              | A1080                    | Construct Median Sign Foundations (3) - Section 1                                    | 6.00d       | Oct-05-2018  | Oct-13-2018 | Nov-02-2018 | Nov-10-2018 | 18.00d |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
| Barrier Wall                 |                          | 26.00d   | Nov-05-2018 | Dec-21-2018  | Nov-12-2018 | Jan-17-2019 | 7.00d       |        |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
|                              | A1090                    | Fine Grade Barrier Wall Pad - Section 1  | 3.00d       | Nov-05-2018  | Nov-09-2018 | Nov-12-2018 | Nov-16-2018 | 4.00d  |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
|                              | A1100                    | Pour Barrier Wall Footings - Section 1   | 4.00d       | Nov-05-2018  | Nov-10-2018 | Nov-12-2018 | Nov-20-2018 | 4.00d  |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
|                              | A1110                    | Slip Barrier Wall - Section 1  | 16.00d      | Nov-12-2018  | Dec-10-2018 | Nov-21-2018 | Dec-19-2018 | 4.00d  |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
|                              | A1120                    | Pour Barrier Wall Sign Transitions - Section 1                                       | 6.00d       | Dec-13-2018  | Dec-21-2018 | Jan-08-2019 | Jan-17-2019 | 7.00d  |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
| Base & Paving                |                          | 44.00d   | Oct-30-2018 | Feb-01-2019  | Nov-29-2018 | Feb-08-2019 | 4.00d       |        |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
| Graded Aggr. Base            |                          | 37.00d   | Oct-30-2018 | Jan-18-2019  | Nov-29-2018 | Jan-26-2019 | 4.00d       |        |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
|                              | A1130                    | Place GAB NB - Section 1   | 10.00d      | Oct-30-2018  | Nov-16-2018 | Nov-29-2018 | Dec-13-2018 | 14.00d |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
|                              | A1140                    | Place GAB SB - Section 1   | 10.00d      | Nov-20-2018  | Dec-06-2018 | Dec-14-2018 | Jan-11-2019 | 14.00d |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
|                              | A1150                    | Fine Grade GAB NB - Section 1  | 7.00d       | Dec-13-2018  | Jan-07-2019 | Dec-20-2018 | Jan-11-2019 | 4.00d  |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
|                              | A1160                    | Fine Grade GAB SB - Section 1  | 7.00d       | Jan-08-2019  | Jan-18-2019 | Jan-16-2019 | Jan-26-2019 | 4.00d  |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
| Asphalt                      |                          | 14.00d   | Jan-08-2019 | Feb-01-2019  | Jan-18-2019 | Feb-08-2019 | 4.00d       |        |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
|                              | A1170                    | Place 25mm Asphaltic Concrete NB - Section 1   | 5.00d       | Jan-08-2019  | Jan-16-2019 | Jan-18-2019 | Jan-26-2019 | 6.00d  |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
|                              | A1190                    | Place 19mm Asphaltic Concrete NB - Section 1   | 2.00d       | Jan-17-2019  | Jan-18-2019 | Feb-02-2019 | Feb-04-2019 | 9.00d  |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
|                              | A1180                    | Place 25mm Asphaltic Concrete SB - Section 1   | 5.00d       | Jan-19-2019  | Jan-28-2019 | Jan-28-2019 | Feb-04-2019 | 4.00d  |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
|                              | A1200                    | Place 19mm Asphaltic Concrete SB - Section 1   | 2.00d       | Jan-31-2019  | Feb-01-2019 | Feb-06-2019 | Feb-08-2019 | 4.00d  |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
| Section 2 - 472+80 to 518+00 |                          | 106.00d  | Nov-26-2018 | Jun-01-2019  | Dec-08-2018 | Sep-04-2019 | 65.00d      |        |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
| Traffic Control              |                          | 1.00d  | Feb-02-2019 | Feb-02-2019  | Feb-13-2019 | Feb-13-2019 | 4.00d       |        |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
|                              | A1990                    | Install Temporary Barrier NB - Section 2   | 1.00d       | Feb-02-2019  | Feb-02-2019 | Feb-13-2019 | Feb-13-2019 | 4.00d  |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
|                              | A2000                    | Install Temporary Barrier SB - Section 2   | 1.00d       | Feb-02-2019  | Feb-02-2019 | Feb-13-2019 | Feb-13-2019 | 4.00d  |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |

 Primary Baseline
  Critical Remaining Work
  Summary

 Actual Work
  Baseline Milestone

 Remaining Work
  Milestone

**I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow Counties**

Data Date: Sep-15-2017

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 Primary Baseline
  Critical Remaining Work
  Summary

 Actual Work
  Baseline Milestone

 Remaining Work
  Milestone

**I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow Counties**

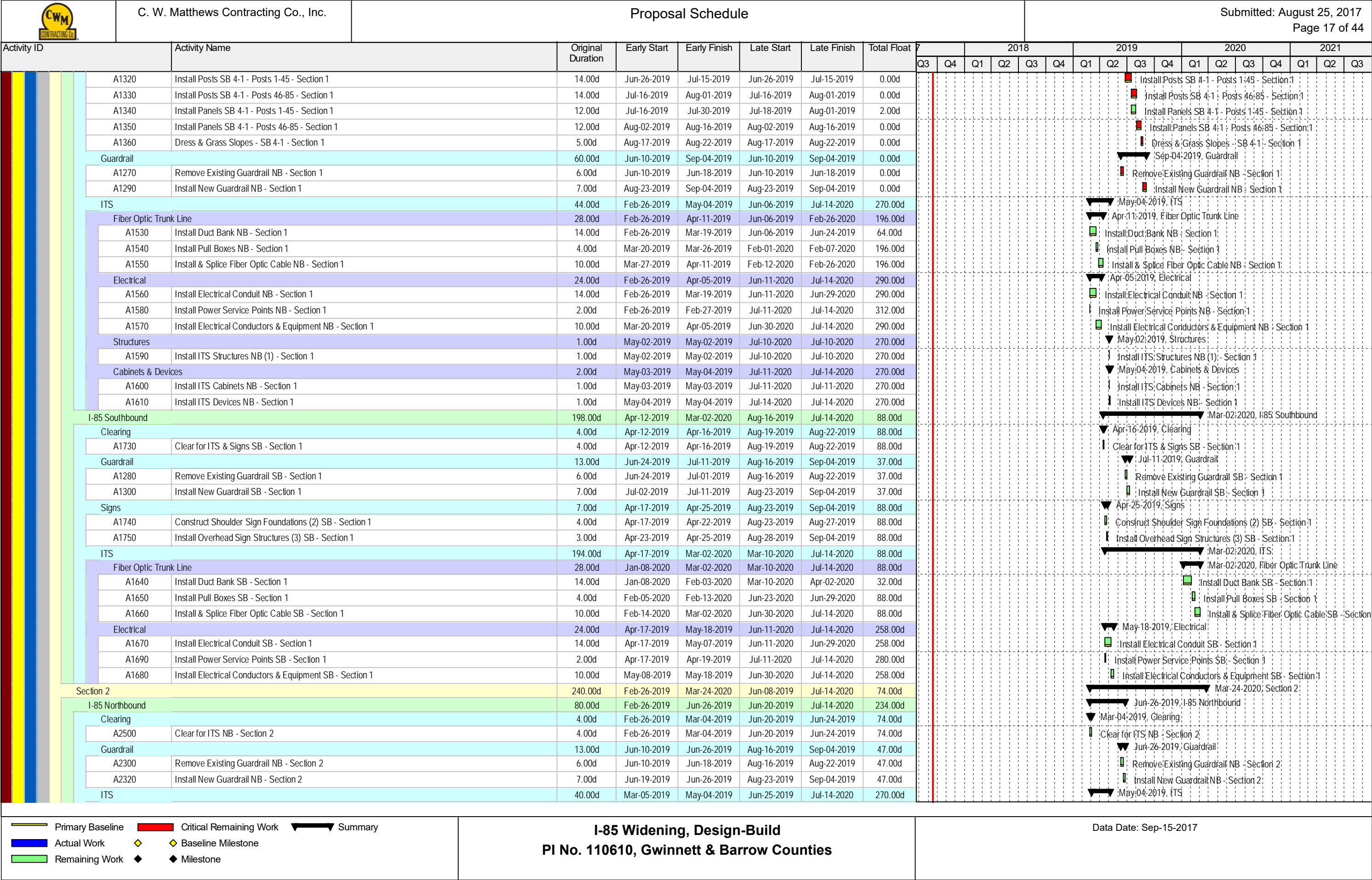
Data Date: Sep-15-2017

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 Primary Baseline   
  Critical Remaining Work   
  Summary  
 Actual Work   
   Baseline Milestone  
 Remaining Work   
   Milestone

**I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow Counties**

Data Date: Sep-15-2017



| Activity ID     |                        | Activity Name  | Original Duration | Early Start | Early Finish | Late Start  | Late Finish | Total Float | 2018 |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |    |  |  |
|-----------------|------------------------|--|-------------------|-------------|--------------|-------------|-------------|-------------|------|----|------|----|----|----|------|----|----|----|------|----|----|--|--|
|                 |                        |  |                   |             |              |             |             |             | Q3   | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 |  |  |
| I-85 Southbound | Fiber Optic Trunk Line |  | 28.00d            | Mar-20-2019 | May-02-2019  | Jun-25-2019 | Mar-13-2020 | 192.00d     |      |    |      |    |    |    |      |    |    |    |      |    |    |  |  |
|                 | A2400                  | Install Duct Bank NB - Section 2                         | 14.00d            | Mar-20-2019 | Apr-11-2019  | Jun-25-2019 | Jul-13-2019 | 64.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |  |  |
|                 | A2410                  | Install Pull Boxes NB - Section 2                        | 4.00d             | Apr-12-2019 | Apr-16-2019  | Feb-21-2020 | Feb-26-2020 | 192.00d     |      |    |      |    |    |    |      |    |    |    |      |    |    |  |  |
|                 | A2420                  | Install & Splice Fiber Optic Cable NB - Section 2        | 10.00d            | Apr-17-2019 | May-02-2019  | Feb-27-2020 | Mar-13-2020 | 192.00d     |      |    |      |    |    |    |      |    |    |    |      |    |    |  |  |
|                 | Electrical             |  | 24.00d            | Mar-05-2019 | Apr-11-2019  | Jun-11-2020 | Jul-14-2020 | 286.00d     |      |    |      |    |    |    |      |    |    |    |      |    |    |  |  |
|                 | A2430                  | Install Electrical Conduit NB - Section 2                | 14.00d            | Mar-05-2019 | Mar-26-2019  | Jun-11-2020 | Jun-29-2020 | 286.00d     |      |    |      |    |    |    |      |    |    |    |      |    |    |  |  |
|                 | A2450                  | Install Power Service Points NB - Section 2              | 2.00d             | Mar-05-2019 | Mar-06-2019  | Jul-11-2020 | Jul-14-2020 | 308.00d     |      |    |      |    |    |    |      |    |    |    |      |    |    |  |  |
|                 | A2440                  | Install Electrical Conductors & Equipment NB - Section 2 | 10.00d            | Mar-27-2019 | Apr-11-2019  | Jun-30-2020 | Jul-14-2020 | 286.00d     |      |    |      |    |    |    |      |    |    |    |      |    |    |  |  |
|                 | Structures             |  | 1.00d             | May-02-2019 | May-02-2019  | Jul-10-2020 | Jul-10-2020 | 270.00d     |      |    |      |    |    |    |      |    |    |    |      |    |    |  |  |
|                 | A2460                  | Install ITS Structures NB (2) - Section 2                | 1.00d             | May-02-2019 | May-02-2019  | Jul-10-2020 | Jul-10-2020 | 270.00d     |      |    |      |    |    |    |      |    |    |    |      |    |    |  |  |
|                 | Cabinets & Devices     |  | 2.00d             | May-03-2019 | May-04-2019  | Jul-11-2020 | Jul-14-2020 | 270.00d     |      |    |      |    |    |    |      |    |    |    |      |    |    |  |  |
|                 | A2470                  | Install ITS Cabinets NB - Section 2                      | 1.00d             | May-03-2019 | May-03-2019  | Jul-11-2020 | Jul-11-2020 | 270.00d     |      |    |      |    |    |    |      |    |    |    |      |    |    |  |  |
|                 | A2480                  | Install ITS Devices NB - Section 2                       | 1.00d             | May-04-2019 | May-04-2019  | Jul-14-2020 | Jul-14-2020 | 270.00d     |      |    |      |    |    |    |      |    |    |    |      |    |    |  |  |
|                 | I-85 Southbound        |  | 223.00d           | Mar-26-2019 | Mar-24-2020  | Jun-08-2019 | Jul-14-2020 | 74.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |  |  |
|                 | Clearing               |  | 11.00d            | Mar-26-2019 | Apr-11-2019  | Jun-08-2019 | Aug-17-2019 | 88.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |  |  |
|                 | A2490                  | Clear & Grub for SB 4-2 - SB - Section 2                 | 7.00d             | Mar-26-2019 | Apr-05-2019  | Jun-08-2019 | Jun-18-2019 | 49.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |  |  |
|                 | A2570                  | Clear for ITS & Signs SB - Section 2                     | 4.00d             | Apr-06-2019 | Apr-11-2019  | Aug-14-2019 | Aug-17-2019 | 88.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |  |  |
|                 | Sound Barrier 4-2      |  | 74.00d            | Apr-06-2019 | Jul-25-2019  | Jun-19-2019 | Aug-22-2019 | 22.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |  |  |
|                 | A2340                  | Rough Grade for Sound Barrier - Section 2                | 6.00d             | Apr-06-2019 | Apr-13-2019  | Jun-19-2019 | Jun-25-2019 | 49.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |  |  |
|                 | A2360                  | Install Posts SB 4-2 - Posts 40-80 - Section 2           | 14.00d            | Apr-15-2019 | May-01-2019  | Jun-26-2019 | Jul-15-2019 | 55.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |  |  |
|                 | A2380                  | Install Panels SB 4-2 - Posts 40-80 - Section 2          | 12.00d            | May-02-2019 | May-15-2019  | Aug-02-2019 | Aug-16-2019 | 69.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |  |  |
|                 | A2900                  | Install Posts SB 4-2 - Posts 80-120 - Section 2          | 14.00d            | May-02-2019 | May-17-2019  | Jul-16-2019 | Aug-01-2019 | 55.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |  |  |
|                 | A2910                  | Install Panels SB 4-2 - Posts 80-120 - Section 2         | 12.00d            | May-18-2019 | Jun-05-2019  | Aug-02-2019 | Aug-16-2019 | 55.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |  |  |
|                 | A2350                  | Install Posts SB 4-2 - Posts 1-40 - Section 2            | 14.00d            | Jun-13-2019 |              |             |             |             |      |    |      |    |    |    |      |    |    |    |      |    |    |  |  |

 Primary Baseline
  Critical Remaining Work
  Summary

 Actual Work
  Baseline Milestone

 Remaining Work
  Milestone

**I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow Counties**

Data Date: Sep-15-2017

| Activity ID |                                     | Activity Name  | Original Duration | Early Start | Early Finish | Late Start  | Late Finish | Total Float | 2018   |  |    |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |  |  |  |  |  |
|-------------|-------------------------------------|--|-------------------|-------------|--------------|-------------|-------------|-------------|--|--|----|----|------|----|----|----|------|----|----|----|------|----|--|--|--|--|--|
|             |                                     |  |                   |             |              |             |             |             | Q3   | Q4   | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 |  |  |  |  |  |
| A15300      | Paving                              |  | 3.00d             | Sep-05-2019 | Sep-11-2019  | Sep-05-2019 | Sep-11-2019 | 0.00d       | ▼ Sep-11-2019, Paving  |  |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |  |  |
|             | A15300                              | Place OGFC Asphaltic Concrete NB - Segment 1   | 3.00d             | Sep-05-2019 | Sep-11-2019  | Sep-05-2019 | Sep-11-2019 | 0.00d       | ▼ Place OGFC Asphaltic Concrete NB - Segment 1   |  |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |  |  |
|             | Pavement Marking                    |  | 25.00d            | Sep-12-2019 | Oct-15-2019  | Sep-12-2019 | Oct-15-2019 | 0.00d       | ▼ Oct-15-2019, Pavement Marking  |  |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |  |  |
|             | A15280                              | Asphalt Cure - 30 Days - NB - Segment 1  | 30.00d            | Sep-12-2019 | Oct-11-2019  | Sep-12-2019 | Oct-11-2019 | 0.00d       | ▼ Asphalt Cure -30 Days -NB -Segment 1   |  |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |  |  |
|             | A15270                              | Install Final Pavement Markings NB - Segment 1                                       | 3.00d             | Oct-12-2019 | Oct-15-2019  | Oct-12-2019 | Oct-15-2019 | 0.00d       | ▼ Install Final Pavement Markings NB -Segment 1  |  |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |  |  |
|             | I-85 Southbound                     |  | 27.00d            | Aug-03-2019 | Sep-11-2019  | Sep-05-2019 | Oct-15-2019 | 25.00d      | ▼ Sep-11-2019, I-85 Southbound   |  |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |  |  |
|             | Paving                              |  | 3.00d             | Aug-03-2019 | Aug-08-2019  | Sep-05-2019 | Sep-11-2019 | 23.00d      | ▼ Aug-08-2019, Paving  |  |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |  |  |
|             | A15290                              | Place OGFC Asphaltic Concrete SB - Segment 1   | 3.00d             | Aug-03-2019 | Aug-08-2019  | Sep-05-2019 | Sep-11-2019 | 23.00d      | ▼ Place OGFC Asphaltic Concrete SB - Segment 1   |  |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |  |  |
|             | Pavement Marking                    |  | 24.00d            | Aug-09-2019 | Sep-11-2019  | Sep-12-2019 | Oct-15-2019 | 25.00d      | ▼ Sep-11-2019, Pavement Marking  |  |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |  |  |
|             | A15260                              | Asphalt Cure - 30 Days - SB - Segment 1  | 30.00d            | Aug-09-2019 | Sep-07-2019  | Sep-12-2019 | Oct-11-2019 | 34.00d      | ▼ Asphalt Cure -30 Days -SB -Segment 1   |  |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |  |  |
|             | A15250                              | Install Final Pavement Markings SB - Segment 1                                       | 3.00d             | Sep-09-2019 | Sep-11-2019  | Oct-12-2019 | Oct-15-2019 | 25.00d      | ▼ Install Final Pavement Markings SB -Segment 1  |  |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |  |  |
|             | Segment Turnover                    |  | 17.00d            | Oct-17-2019 | Nov-11-2019  | Oct-17-2019 | Nov-11-2019 | 0.00d       | ▼ Nov-11-2019, Segment Turnover  |  |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |  |  |
|             | A15330                              | Prepare/Submit Written Notice to GDOT of Segment 1 Turnover                          | 2.00d             | Oct-17-2019 | Oct-18-2019  | Oct-17-2019 | Oct-18-2019 | 0.00d       | ▼ Prepare/Submit Written Notice to GDOT of Segment 1 Turnover                          |  |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |  |  |
|             | A15340                              | GDOT Review Segment 1 for Opening to Traffic   | 5.00d             | Oct-19-2019 | Oct-25-2019  | Oct-19-2019 | Oct-25-2019 | 0.00d       | ▼ GDOT Review Segment 1 for Opening to Traffic   |  |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |  |  |
|             | A15350                              | Address Corrective Items for Segment 1 Turnover                                      | 10.00d            | Oct-26-2019 | Nov-11-2019  | Oct-26-2019 | Nov-11-2019 | 0.00d       | ▼ Address Corrective Items for Segment 1 Turnover                                      |  |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |  |  |
|             | Segment 2 - Spout Springs to 725+60 |  |                   | 415.00d     | Jul-12-2018  | May-26-2020 | Aug-13-2018 | Jul-14-2020 | 32.00d   | ▼ Jul-12-2018, Segment 2 - Spout Springs to 725+60 |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |  |  |
|             | Stage 1 - Shift Traffic to Outside  |  |                   | 51.00d      | Jul-12-2018  | Sep-24-2018 | Aug-13-2018 | Dec-13-2018 | 50.00d   | ▼ Sep-24-2018, Stage 1 - Shift Traffic to Outside  |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |  |  |
|             | I-85 NB Outside Shoulder            |  |                   | 45.00d      | Jul-12-2018  | Sep-15-2018 | Aug-13-2018 | Nov-21-2018 | 44.00d   | ▼ Sep-15-2018, I-85 NB Outside Shoulder            |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |  |  |
|             | Paving                              |  |                   | 45.00d      | Jul-12-2018  | Sep-15-2018 | Aug-13-2018 | Nov-21-2018 | 44.00d   | ▼ Sep-15-2018, Paving                              |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |  |  |
|             | A1370                               | Mill Existing Lanes 3" - NB - Segment 2  | 12.00d            | Jul-12-2018 | Jul-30-2018  | Oct-30-2018 | Nov-21-2018 | 77.00d      | ▼ Mill Existing Lanes 3" -NB -Segment 2  |  |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |  |  |
|             | A1420                               | Place Asphaltic Leveling for Cross-Slope Correction - Section 3 & 4 - NB - Segment 2 | 15.00d            | Aug-03-2018 | Aug-22-2018  | Aug-13-2018 | Aug-31-2018 | 6.00d       | ▼ Place Asphaltic Leveling for Cross-Slope Correction - Section 3 & 4 - NB - Segment 2 |  |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |  |  |
|             | A1430                               | Place Asphaltic Leveling for Cross-Slope Correction - Section 5 & 6 - NB - Segment 2 | 15.00d            | Aug-25-2018 | Sep-15-2018  | Sep-05-2018 | Sep-24-2018 | 6.00d       | ▼ Place Asphaltic Leveling for Cross-Slope Correction - Section 5 & 6 - NB - Segment 2 |  |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |  |  |
|             | I-85 SB Outside Shoulder            |  |                   | 39.00d      | Jul-31-2018  | Sep-24-2018 | Aug-13-2018 | Dec-13-2018 | 50.00d   | ▼ Sep-24-2018, I-85 SB Outside Shoulder            |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |  |  |
|             | Paving                              |  |                   | 39.00d      | Jul-31-2018  | Sep-24-2018 | Aug-13-2018 | Dec-13-2018 | 50.00d   | ▼ Sep-24-2018, Paving                              |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |  |  |
|             | A1380                               | Mill Existing Lanes 3" - SB - Segment 2  | 12.00d            | Jul-31-2018 | Aug-15-2018  | Nov-26-2018 | Dec-13-2018 | 77.00d      | ▼ Mill Existing Lanes 3" -SB -Segment 2  |  |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |  |  |
|             | A13660                              | Place Asphaltic Leveling for Cross-Slope Correction - Section 3 & 4 - SB - Segment 2 | 15.00d            | Aug-13-2018 | Aug-31-2018  | Aug-13-2018 | Aug-31-2018 | 0.00d       | ▼ Place Asphaltic Leveling for Cross-Slope Correction - Section 3 & 4 - SB - Segment 2 |  |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |  |  |
|             | A13670                              | Place Asphaltic Leveling for Cross-Slope Correction - Section 5 & 6 - SB - Segment 2 | 15.00d            | Sep-05-2018 | Sep-24-2018  | Sep-05-2018 | Sep-24-2018 | 0.00d       | ▼ Place Asphaltic Leveling for Cross-Slope Correction - Section 5 & 6 - SB - Segment 2 |  |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |  |  |
|             | Stage 2 - Construct Median          |  |                   | 352.00d     | Sep-19-2018  | May-04-2020 | Sep-25-2018 | Jul-14-2020 | 48.00d   | ▼ Sep-19-2018, Stage 2 - Construct Median          |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |  |  |
|             | Section 3 - 518+00 to 575+50        |  |                   | 74.00       |              |             |             |             |  |  |    |    |      |    |    |    |      |    |    |    |      |    |  |  |  |  |  |

 Primary Baseline
  Critical Remaining Work
  Summary

 Actual Work
  Baseline Milestone

 Remaining Work
  Milestone

**I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow Counties**

Data Date: Sep-15-2017

[illegible]

 Primary Baseline
  Critical Remaining Work
  Summary

 Actual Work
  Baseline Milestone

 Remaining Work
  Milestone

**I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow Counties**

Data Date: Sep-15-2017

| <div><div>CWM</div><div>CONTRACTING CO.</div></div> |                              | C. W. Matthews Contracting Co., Inc.                                 |        | Proposal Schedule |             |              |             |             |             |    |    |      |    | Submitted: August 25, 2017<br>Page 21 of 44 |    |      |    |    |    |      |    |    |  |      |  |  |
|---|------------------------------|--|--------|-------------------|-------------|--------------|-------------|-------------|-------------|----|----|------|----|---|----|------|----|----|----|------|----|----|--|------|--|--|
| Activity ID   |                              | Activity Name  |        | Original Duration | Early Start | Early Finish | Late Start  | Late Finish | Total Float |    |    | 2018 |    |   |    | 2019 |    |    |    | 2020 |    |    |  | 2021 |  |  |
|   |                              |  |        |                   |             |              |             |             |             | Q3 | Q4 | Q1   | Q2 | Q3  | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 |  |      |  |  |
|   | A4300                        | Place 19mm Asphaltic Concrete NB - Section 4                         |        | 2.00d             | May-21-2019 | May-22-2019  | May-21-2019 | May-22-2019 | 0.00d       |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | A4290                        | Place 25mm Asphaltic Concrete SB - Section 4                         |        | 5.00d             | May-28-2019 | Jun-04-2019  | Jun-15-2019 | Jun-20-2019 | 11.00d      |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | A4310                        | Place 19mm Asphaltic Concrete SB - Section 4                         |        | 2.00d             | Jun-06-2019 | Jun-07-2019  | Jun-21-2019 | Jun-22-2019 | 11.00d      |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | Structures                   |  | 86.00d | Nov-25-2019       | May-04-2020 | Feb-27-2020  | Jul-14-2020 | 48.00d      |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | A15060                       | Closure Duration for Flowery Branch - Section 4 (180 Days Allowable) |        | 152.00d           | Dec-05-2019 | May-04-2020  | Mar-06-2020 | Jul-14-2020 | 71.00d      |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | Bridge - Flowery Branch      |  | 86.00d | Nov-25-2019       | May-04-2020 | Feb-27-2020  | Jul-14-2020 | 48.00d      |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | A14480                       | Mobilize to Flowery Branch - Section 4                               |        | 6.00d             | Nov-25-2019 | Dec-04-2019  | Feb-27-2020 | Mar-05-2020 | 53.00d      |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | A14490                       | Remove Existing Flowery Branch Bridge - Section 4                    |        | 18.00d            | Dec-05-2019 | Jan-11-2020  | Mar-06-2020 | Apr-01-2020 | 53.00d      |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | Foundations                  |  | 4.00d  | Jan-15-2020       | Jan-18-2020 | Apr-03-2020  | Apr-11-2020 | 56.00d      |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | A14500                       | Excavate/Drive Pile - Bt #1 - Flowery Branch - Section 4             |        | 4.00d             | Jan-15-2020 | Jan-18-2020  | Apr-07-2020 | Apr-11-2020 | 56.00d      |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | A14510                       | Excavate/Drive Pile - Bt #2 - Flowery Branch - Section 4             |        | 4.00d             | Jan-15-2020 | Jan-18-2020  | Apr-03-2020 | Apr-07-2020 | 53.00d      |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | A14520                       | Excavate/Drive Pile - Bt #3 - Flowery Branch - Section 4             |        | 4.00d             | Jan-15-2020 | Jan-18-2020  | Apr-07-2020 | Apr-11-2020 | 56.00d      |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | Substructure                 |  | 9.00d  | Jan-20-2020       | Feb-05-2020 | Apr-09-2020  | Apr-22-2020 | 46.00d      |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | A14530                       | Construct Bt #1 - Flowery Branch - Section 4                         |        | 3.00d             | Jan-20-2020 | Jan-22-2020  | Apr-13-2020 | Apr-15-2020 | 56.00d      |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | A14540                       | Construct Bt #2 - Flowery Branch - Section 4                         |        | 6.00d             | Jan-20-2020 | Jan-29-2020  | Apr-09-2020 | Apr-15-2020 | 53.00d      |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | A14550                       | Construct Bt #3 - Flowery Branch - Section 4                         |        | 3.00d             | Jan-20-2020 | Jan-22-2020  | Apr-13-2020 | Apr-15-2020 | 56.00d      |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | A14560                       | Cure Time - Bt #1 - Flowery Branch - Section 4                       |        | 7.00d             | Jan-23-2020 | Jan-29-2020  | Apr-16-2020 | Apr-22-2020 | 84.00d      |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | A14580                       | Cure Time - Bt #3 - Flowery Branch - Section 4                       |        | 7.00d             | Jan-23-2020 | Jan-29-2020  | Apr-16-2020 | Apr-22-2020 | 84.00d      |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | A14570                       | Cure Time - Bt #2 - Flowery Branch - Section 4                       |        | 7.00d             | Jan-30-2020 | Feb-05-2020  | Apr-16-2020 | Apr-22-2020 | 77.00d      |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | Superstructure               |  | 71.00d | Jan-25-2020       | May-04-2020 | Apr-20-2020  | Jul-14-2020 | 53.00d      |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | A14590                       | Grade for Crane Access - Flowery Branch - Section 4                  |        | 3.00d             | Jan-25-2020 | Jan-29-2020  | Apr-20-2020 | Apr-22-2020 | 59.00d      |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | A14600                       | Erect PSC Beams - Span 1 - Flowery Branch - Section 4                |        | 1.00d             | Feb-06-2020 | Feb-06-2020  | Apr-23-2020 | Apr-23-2020 | 53.00d      |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | A14610                       | Erect PSC Beams - Span 2 - Flowery Branch - Section 4                |        | 1.00d             | Feb-06-2020 | Feb-06-2020  | Apr-23-2020 | Apr-23-2020 | 53.00d      |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | A14630                       | Grade PSC Beams - Flowery Branch - Section 4                         |        | 3.00d             | Feb-07-2020 | Feb-12-2020  | Apr-24-2020 | Apr-27-2020 | 53.00d      |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | A14620                       | Construct Sub-Deck - Flowery Branch - Section 4                      |        | 18.00d            | Feb-13-2020 | Mar-10-2020  | Apr-28-2020 | May-19-2020 | 53.00d      |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | A14640                       | Construct Bridge Deck - Flowery Branch - Section 4                   |        | 18.00d            | Mar-11-2020 | Apr-06-2020  | May-20-2020 | Jun-15-2020 | 53.00d      |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | A14650                       | Construct Approach Slabs - Flowery Branch - Section 4                |        | 4.00d             | Apr-07-2020 | Apr-11-2020  | Jun-16-2020 | Jun-19-2020 | 53.00d      |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | A14660                       | Construct Bridge Barrier - Flowery Branch - Section 4                |        | 2.00d             | Apr-13-2020 | Apr-14-2020  | Jun-20-2020 | Jun-22-2020 | 53.00d      |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | A14680                       | Remove Overhangs - Flowery Branch - Section 4                        |        | 6.00d             | Apr-15-2020 | Apr-21-2020  | Jun-23-2020 | Jun-30-2020 | 53.00d      |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | A14690                       | Sweep Deck - Flowery Branch - Section 4                              |        | 3.00d             | Apr-22-2020 | Apr-24-2020  | Jul-01-2020 | Jul-06-2020 | 53.00d      |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | A14700                       | Profilograph Bridge Deck - Flowery Branch - Section 4                |        | 1.00d             | Apr-25-2020 | Apr-25-2020  | Jul-07-2020 | Jul-07-2020 | 53.00d      |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | A14670                       | Groove Bridge Deck - Flowery Branch - Section 4                      |        | 3.00d             | Apr-27-2020 | Apr-30-2020  | Jul-08-2020 | Jul-10-2020 | 53.00d      |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | A14710                       | Seal Joints/ Clean-up - Flowery Branch - Section 3                   |        | 3.00d             | May-01-2020 | May-04-2020  | Jul-11-2020 | Jul-14-2020 | 53.00d      |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | Section 5 - 620+00 to 672+80 |  | 78.00d | Sep-19-2018       | Feb-08-2019 | Sep-25-2018  | Feb-08-2019 | 0.00d       |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | Traffic Control              |  | 5.00d  | Sep-19-2018       | Sep-25-2018 | Sep-25-2018  | Sep-25-2018 | 0.00d       |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | A4090                        | Install Temporary Barrier NB - Section 5                             |        | 1.00d             | Sep-19-2018 | Sep-19-2018  | Sep-25-2018 | Sep-25-2018 | 4.00d       |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | A4100                        | Install Temporary Barrier SB - Section 5                             |        | 1.00d             | Sep-25-2018 | Sep-25-2018  | Sep-25-2018 | Sep-25-2018 | 0.00d       |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | Grading                      |  | 39.00d | Sep-26-2018       | Nov-28-2018 | Sep-26-2018  | Dec-13-2018 | 10.00d      |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | Rough Grade                  |  | 32.00d | Sep-26-2018       | Nov-10-2018 | Sep-26-2018  | Nov-10-2018 | 0.00d       |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | A3860                        | Remove Cable Barrier & Mow Strip - Section 5                         |        | 4.00d             | Sep-26-2018 | Sep-29-2018  | Sep-26-2018 | Sep-29-2018 | 0.00d       |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | A3870                        | Remove Top Soil - Section 5  |        | 8.00d             | Oct-01-2018 | Oct-11-2018  | Oct-01-2018 | Oct-11-2018 | 0.00d       |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | A3880                        | Rough Grade to Subgrade NB - Section 5                               |        | 10.00d            | Oct-12-2018 | Oct-24-2018  | Oct-12-2018 | Oct-24-2018 | 0.00d       |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | A3890                        | Rough Grade to Subgrade SB - Section 5                               |        | 10.00d            | Oct-26-2018 | Nov-10-2018  | Oct-26-2018 | Nov-10-2018 | 0.00d       |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | Fine Grade                   |  | 17.00d | Oct-26-2018       | Nov-28-2018 | Nov-12-2018  | Dec-13-2018 | 10.00d      |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | A3900                        | Fine Grade Subgrade NB - Section 5                                   |        | 7.00d             | Oct-26-2018 | Nov-05-2018  | Nov-12-2018 | Nov-28-2018 | 10.00d      |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | A3910                        | Fine Grade Subgrade SB - Section 5                                   |        | 7.00d             | Nov-12-2018 | Nov-28-2018  | Dec-04-2018 | Dec-13-2018 | 10.00d      |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | Drainage                     |  | 6.00d  | Oct-12-2018       | Oct-19-2018 | Nov-02-2018  | Nov-10-2018 | 14.00d      |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   | Storm Drain Pipe             |  | 4.00d  | Oct-12-2018       | Oct-16-2018 | Nov-02-2018  | Nov-06-2018 | 14.00d      |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |
|   |                              |  |        |                   |             |              |             |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |  |      |  |  |

[illegible]

 Primary Baseline
  Critical Remaining Work
  Summary

 Actual Work
  Baseline Milestone

 Remaining Work
  Milestone

**I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow Counties**

Data Date: Sep-15-2017

[illegible]

 Primary Baseline
  Critical Remaining Work
  Summary

 Actual Work
  Baseline Milestone

 Remaining Work
  Milestone

**I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow Counties**

Data Date: Sep-15-2017

| Activity ID       |   | Activity Name  | Original Duration | Early Start | Early Finish | Late Start  | Late Finish | Total Float | 2018 |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |    |
|-------------------|---|--|-------------------|-------------|--------------|-------------|-------------|-------------|------|----|------|----|----|----|------|----|----|----|------|----|----|
|                   |   |  |                   |             |              |             |             |             | Q3   | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 |
| <div></div>       | A2750   | Install Power Service Points NB - Section 3              | 2.00d             | Mar-12-2019 | Mar-13-2019  | Jul-11-2020 | Jul-14-2020 | 304.00d     |      |    |      |    |    |    |      |    |    |    |      |    |    |
|                   | A2740   | Install Electrical Conductors & Equipment NB - Section 3 | 10.00d            | Apr-04-2019 | Apr-16-2019  | Jun-30-2020 | Jul-14-2020 | 282.00d     |      |    |      |    |    |    |      |    |    |    |      |    |    |
|                   | I-85 Southbound                                 |  | 237.00d           | Mar-26-2019 | Apr-15-2020  | Apr-20-2019 | Jul-14-2020 | 60.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
|                   | Clearing  |  | 16.00d            | Mar-26-2019 | Apr-17-2019  | Apr-20-2019 | Apr-21-2020 | 225.00d     |      |    |      |    |    |    |      |    |    |    |      |    |    |
|                   | A3100   | Clear and Grub for SB 4-4 - SB - Section 3               | 12.00d            | Mar-26-2019 | Apr-12-2019  | Apr-20-2019 | May-07-2019 | 17.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
|                   | A2870   | Clear for ITS & Signs SB - Section 3                     | 4.00d             | Apr-13-2019 | Apr-17-2019  | Apr-17-2020 | Apr-21-2020 | 225.00d     |      |    |      |    |    |    |      |    |    |    |      |    |    |
|                   | Sound Barrier 4-4                               |  | 91.00d            | Apr-13-2019 | Aug-22-2019  | May-08-2019 | Sep-18-2019 | 18.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
|                   | A2980   | Rough Grade for Sound Barrier - Section 3                | 6.00d             | Apr-13-2019 | Apr-20-2019  | May-08-2019 | May-14-2019 | 17.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
|                   | A2990   | Install Posts SB 4-4 - Posts 1-40 - Section 3            | 14.00d            | Apr-22-2019 | May-08-2019  | May-15-2019 | Jun-04-2019 | 19.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
|                   | A3000   | Install Posts SB 4-4 - Posts 41-80 - Section 3           | 14.00d            | May-09-2019 | May-29-2019  | Jun-05-2019 | Jun-22-2019 | 19.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
|                   | A3010   | Install Panels SB 4-4 - Posts 1-40 - Section 3           | 12.00d            | May-09-2019 | May-22-2019  | Aug-21-2019 | Sep-05-2019 | 77.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
|                   | A3020   | Install Panels SB 4-4 - Posts 41-80 - Section 3          | 12.00d            | May-30-2019 | Jun-14-2019  | Aug-21-2019 | Sep-05-2019 | 63.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
|                   | A3030   | Install Posts SB 4-4 - Posts 81-120 - Section 3          | 14.00d            | May-30-2019 | Jun-17-2019  | Jun-24-2019 | Jul-12-2019 | 19.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
|                   | A3040   | Install Posts SB 4-4 - Posts 121-160 - Section 3         | 14.00d            | Jun-18-2019 | Jul-03-2019  | Jul-13-2019 | Jul-30-2019 | 19.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
|                   | A3050   | Install Panels SB 4-4 - Posts 81-120 - Section 3         | 12.00d            | Jun-18-2019 | Jul-01-2019  | Jul-18-2019 | Aug-01-2019 | 23.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
|                   | A3060   | Install Posts SB 4-4 - Posts 161-200 - Section 3         | 14.00d            | Jul-08-2019 | Jul-24-2019  | Jul-31-2019 | Aug-16-2019 | 19.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
|                   | A3070   | Install Panels SB 4-4 - Posts 121-160 - Section 3        | 12.00d            | Jul-08-2019 | Jul-20-2019  | Aug-02-2019 | Aug-16-2019 | 21.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
|                   | A3080   | Install Panels SB 4-4 - Posts 161-200 - Section 3        | 14.00d            | Jul-25-2019 | Aug-10-2019  | Aug-19-2019 | Sep-05-2019 | 19.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
|                   | A3090   | Dress & Grass Slopes - SB 4-4 - Section 3                | 10.00d            | Aug-12-2019 | Aug-22-2019  | Sep-06-2019 | Sep-18-2019 | 18.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
|                   | Guardrail                                       |  | 50.00d            | Jun-24-2019 | Sep-04-2019  | Sep-12-2019 | Sep-26-2019 | 18.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
|                   | A2610   | Remove Existing Guardrail SB - Section 3                 | 6.00d             | Jun-24-2019 | Jul-01-2019  | Sep-12-2019 | Sep-18-2019 | 55.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
|                   | A2630   | Install New Guardrail SB - Section 3                     | 7.00d             | Aug-23-2019 | Sep-04-2019  | Sep-19-2019 | Sep-26-2019 | 18.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
|                   | ITS   |  | 221.00d           | Apr-19-2019 | Apr-15-2020  | Apr-22-2020 | Jul-14-2020 | 60.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
|                   | Fiber Optic Trunk Line                          |  | 28.00d            | Mar-03-2020 | Apr-15-2020  | Apr-22-2020 | Jul-14-2020 | 60.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
|                   | A2810   | Install Duct Bank SB - Section 3                         | 14.00d            | Mar-03-2020 | Mar-24-2020  | Apr-22-2020 | May-11-2020 | 32.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
|                   | A2820   | Install Pull Boxes SB - Section 3                        | 4.00d             | Mar-25-2020 | Apr-02-2020  | Jun-23-2020 | Jun-29-2020 | 60.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
|                   | A2830   | Install & Splice Fiber Optic Cable SB - Section 3        | 10.00d            | Apr-03-2020 | Apr-15-2020  | Jun-30-2020 | Jul-14-2020 | 60.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
|                   | Electrical                                      |  | 24.00d            | Apr-19-2019 | May-20-2019  | Jun-11-2020 | Jul-14-2020 | 257.00d     |      |    |      |    |    |    |      |    |    |    |      |    |    |
|                   | A2840   | Install Electrical Conduit SB - Section 3                | 14.00d            | Apr-19-2019 | May-08-2019  | Jun-11-2020 | Jun-29-2020 | 257.00d     |      |    |      |    |    |    |      |    |    |    |      |    |    |
|                   | A2860   | Install Power Service Points SB - Section 3              | 2.00d             | Apr-19-2019 | Apr-20-2019  | Jul-11-2020 | Jul-14-2020 | 279.00d     |      |    |      |    |    |    |      |    |    |    |      |    |    |
|                   | A2850   | Install Electrical Conductors & Equipment SB - Section 3 | 10.00d            | May-09-2019 | May-20-2019  | Jun-30-2020 | Jul-14-2020 | 257.00d     |      |    |      |    |    |    |      |    |    |    |      |    |    |
|                   | Structures                                      |  | 1.00d             | Apr-19-2019 | Apr-19-2019  | Jul-09-2020 | Jul-09-2020 | 277.00d     |      |    |      |    |    |    |      |    |    |    |      |    |    |
|                   | A2760   | Install ITS Structures SB (1) - Section 3                | 1.00d             | Apr-19-2019 | Apr-19-2019  | Jul-09-2020 | Jul-09-2020 | 277.00d     |      |    |      |    |    |    |      |    |    |    |      |    |    |
|                   | Cabinets & Devices                              |  | 3.00d             | Apr-20-2019 | Apr-23-2019  | Jul-10-2020 | Jul-14-2020 | 277.00d     |      |    |      |    |    |    |      |    |    |    |      |    |    |
|                   | A2770   | Install ITS Cabinets SB - Section 3                      | 2.00d             | Apr-20-2019 | Apr-22-2019  | Jul-10-2020 | Jul-11-2020 | 277.00d     |      |    |      |    |    |    |      |    |    |    |      |    |    |
|                   | A2780   | Install ITS Devices SB - Section 3                       | 1.00d             | Apr-23-2019 | Apr-23-2019  | Jul-14-2020 | Jul-14-2020 | 277.00d     |      |    |      |    |    |    |      |    |    |    |      |    |    |
|                   | Section 4                                       |  | 260.00d           | Mar-12-2019 | May-06-2020  | Jul-02-2019 | Jul-14-2020 | 46.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
|                   | I-85 Northbound                                 |  | 122.00d           | Mar-12-2019 | Sep-09-2019  | Jul-02-2019 | Jul-14-2020 | 184.00d     |      |    |      |    |    |    |      |    |    |    |      |    |    |
|                   | Clearing  |  | 64.00d            | Mar-12-2019 | Jun-17-2019  | Jul-03-2019 | Aug-03-2019 | 34.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
|                   | A3710   | Clear for ITS NB - Section 4                             | 4.00d             | Mar-12-2019 | Mar-15-2019  | Jul-31-2019 | Aug-03-2019 | 94.00d      |      |    |      |    |    |    |      |    |    |    |      |    |    |
| A4450             | Clear and Grub for SB 4-6 - NB - Section 4      | 5.00d  | Jun-10-2019       | Jun-17-2019 | Jul-03-2019  | Jul-10-2019 | 17.00d      |             |      |    |      |    |    |    |      |    |    |    |      |    |    |
| Sound Barrier 4-6 |   | 51.00d   | Jun-18-2019       | Aug-26-2019 | Jul-11-2019  | Sep-18-2019 | 15.00d      |             |      |    |      |    |    |    |      |    |    |    |      |    |    |
| A4390             | Rough Grade for Sound Barrier - Section 4       | 3.00d  | Jun-18-2019       | Jun-20-2019 | Jul-11-2019  | Jul-13-2019 | 17.00d      |             |      |    |      |    |    |    |      |    |    |    |      |    |    |
| A4400             | Install Posts SB 4-6 - Posts 1-45 - Section 4   | 16.00d   | Jun-21-2019       | Jul-12-2019 | Jul-15-2019  | Aug-02-2019 | 17.00d      |             |      |    |      |    |    |    |      |    |    |    |      |    |    |
| A4410             | Install Posts SB 4-6 - Posts 46-90 - Section 4  | 16.00d   | Jul-13-2019       | Aug-01-2019 | Aug-03-2019  | Aug-23-2019 | 17.00d      |             |      |    |      |    |    |    |      |    |    |    |      |    |    |
| A4420             | Install Panels SB 4-6 - Posts 1-45 - Section 4  | 14.00d   | Jul-13-2019       | Jul-30-2019 | Aug-24-2019  | Sep-12-2019 | 33.00d      |             |      |    |      |    |    |    |      |    |    |    |      |    |    |
| A4430             | Install Panels SB 4-6 - Posts 46-90 - Section 4 | 14.00d   | Aug-02-2019       | Aug-20-2019 | Aug-24-2019  | Sep-12-2019 | 17.00d      |             |      |    |      |    |    |    |      |    |    |    |      |    |    |
| A4440             | Dress & Grass Slopes - SB 4-6 - Section 4       | 5.00d  | Aug-21-2019       | Aug-26-2019 | Sep-13-2019  | Sep-18-2019 | 15.00d      |             |      |    |      |    |    |    |      |    |    |    |      |    |    |

 Primary Baseline
  Critical Remaining Work
  Summary

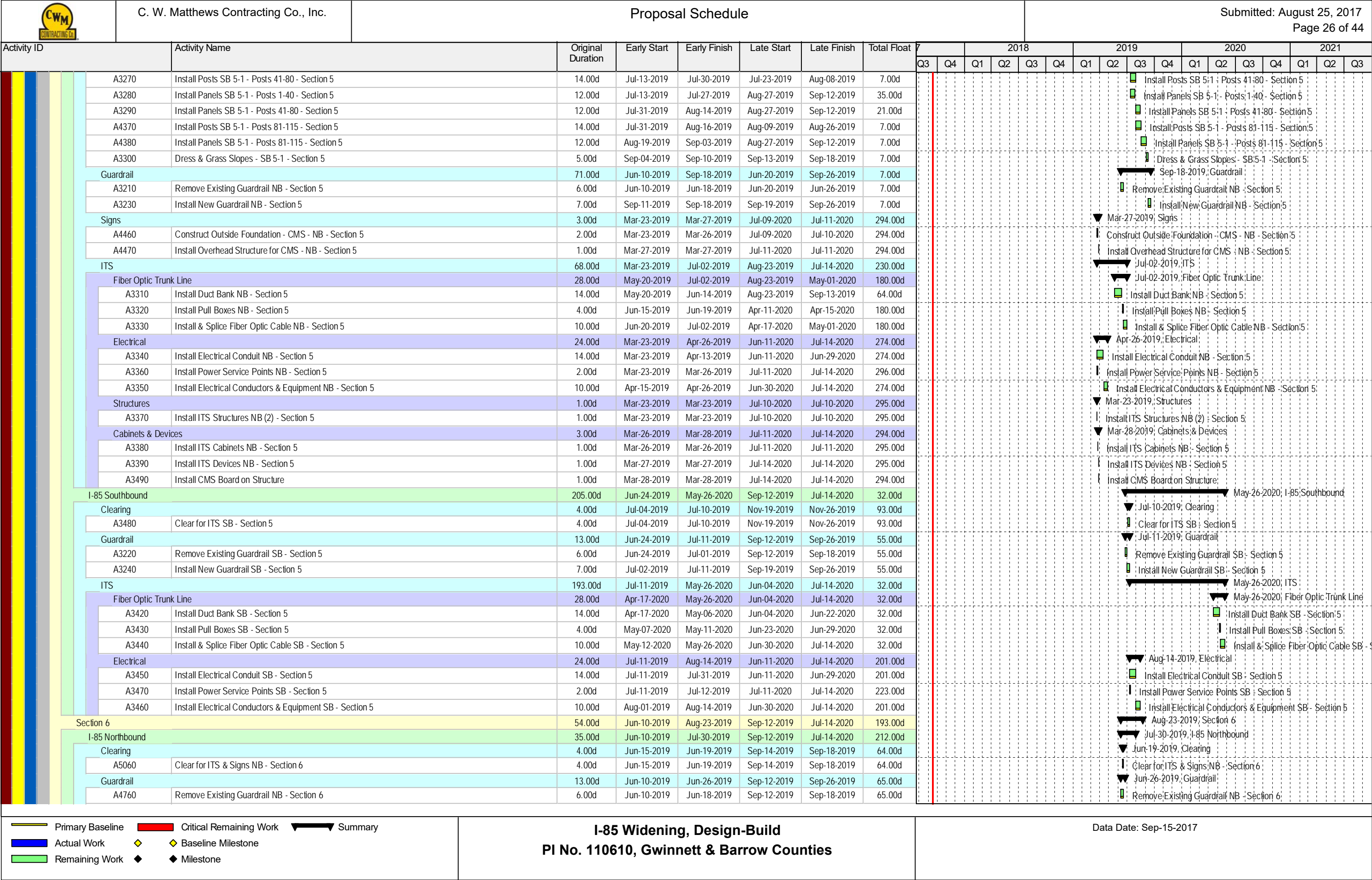
 Actual Work
  Baseline Milestone

 Remaining Work
  Milestone

**I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow Counties**

Data Date: Sep-15-2017







| Activity ID |   | Activity Name  | Original Duration | Early Start | Early Finish | Late Start  | Late Finish | Total Float | 2018   |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |    |
|-------------|---|--|-------------------|-------------|--------------|-------------|-------------|-------------|--|----|------|----|----|----|------|----|----|----|------|----|----|
|             |   |  |                   |             |              |             |             |             | Q3   | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 |
| A13980      | Address Corrective Items for Segment 2 Turnover |  | 7.00d             | Nov-26-2019 | Dec-06-2019  | Nov-26-2019 | Dec-06-2019 | 0.00d       | Address Corrective Items for Segment 2 Turnover                                      |    |      |    |    |    |      |    |    |    |      |    |    |
|             | Segment 3 - 725+60 to North of Mulberry River   |  | 417.00d           | Jul-31-2018 | Jun-17-2020  | Oct-27-2018 | Jul-14-2020 | 18.00d      | Jun-17-2020, Segment 3 - 725+60 to North of Mulberry River                           |    |      |    |    |    |      |    |    |    |      |    |    |
|             | Stage 1 - Shift Traffic to Outside              |  | 48.00d            | Jul-31-2018 | Oct-04-2018  | Dec-14-2018 | Jan-28-2019 | 59.00d      | Oct-04-2018, Stage 1 - Shift Traffic to Outside                                      |    |      |    |    |    |      |    |    |    |      |    |    |
|             | I-85 NB Outside Shoulder                        |  | 42.00d            | Jul-31-2018 | Sep-27-2018  | Dec-14-2018 | Jan-28-2019 | 65.00d      | Sep-27-2018, I-85 NB Outside Shoulder  |    |      |    |    |    |      |    |    |    |      |    |    |
|             | Paving  |  | 42.00d            | Jul-31-2018 | Sep-27-2018  | Dec-14-2018 | Jan-28-2019 | 65.00d      | Sep-27-2018, Paving  |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A13740  | Mill Existing Lanes 3" - NB - Segment 3  | 9.00d             | Jul-31-2018 | Aug-11-2018  | Dec-14-2018 | Jan-10-2019 | 89.00d      | Mill Existing Lanes 3" - NB - Segment 3  |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A13750  | Place Asphaltic Leveling for Cross-Slope Correction - Section 7 & 8 - NB - Segment 3 | 9.00d             | Sep-17-2018 | Sep-27-2018  | Jan-11-2019 | Jan-28-2019 | 65.00d      | Place Asphaltic Leveling for Cross-Slope Correction - Section 7 & 8 - NB - Segment 3 |    |      |    |    |    |      |    |    |    |      |    |    |
|             | I-85 SB Outside Shoulder                        |  | 36.00d            | Aug-16-2018 | Oct-04-2018  | Dec-14-2018 | Jan-28-2019 | 59.00d      | Oct-04-2018, I-85 SB Outside Shoulder  |    |      |    |    |    |      |    |    |    |      |    |    |
|             | Paving  |  | 36.00d            | Aug-16-2018 | Oct-04-2018  | Dec-14-2018 | Jan-28-2019 | 59.00d      | Oct-04-2018, Paving  |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A13780  | Mill Existing Lanes 3" - SB - Segment 3  | 9.00d             | Aug-16-2018 | Aug-28-2018  | Dec-14-2018 | Jan-10-2019 | 77.00d      | Mill Existing Lanes 3" - SB - Segment 3  |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A13790  | Place Asphaltic Leveling for Cross-Slope Correction - Section 7 & 8 - SB - Segment 3 | 9.00d             | Sep-25-2018 | Oct-04-2018  | Jan-11-2019 | Jan-28-2019 | 59.00d      | Place Asphaltic Leveling for Cross-Slope Correction - Section 7 & 8 - SB - Segment 3 |    |      |    |    |    |      |    |    |    |      |    |    |
|             | Stage 2 - Construct Median                      |  | 225.00d           | Sep-28-2018 | Sep-28-2019  | Oct-27-2018 | Nov-18-2019 | 32.00d      | Sep-28-2019, Stage 2 - Construct Median  |    |      |    |    |    |      |    |    |    |      |    |    |
|             | Section 7 - 725+60 to 778+40                    |  | 87.00d            | May-28-2019 | Sep-28-2019  | Jul-30-2019 | Nov-18-2019 | 32.00d      | Sep-28-2019, Section 7 - 725+60 to 778+40  |    |      |    |    |    |      |    |    |    |      |    |    |
|             | Traffic Control                                 |  | 11.00d            | May-28-2019 | Jun-14-2019  | Jul-30-2019 | Jul-30-2019 | 32.00d      | Jun-14-2019, Traffic Control   |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A5390   | Install Temporary Barrier NB - Section 7   | 1.00d             | May-28-2019 | May-28-2019  | Jul-30-2019 | Jul-30-2019 | 42.00d      | Install Temporary Barrier NB - Section 7   |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A5400   | Install Temporary Barrier SB - Section 7   | 1.00d             | Jun-14-2019 | Jun-14-2019  | Jul-30-2019 | Jul-30-2019 | 32.00d      | Install Temporary Barrier SB - Section 7   |    |      |    |    |    |      |    |    |    |      |    |    |
|             | Grading   |  | 39.00d            | Jun-15-2019 | Aug-09-2019  | Jul-31-2019 | Oct-11-2019 | 45.00d      | Aug-09-2019, Grading   |    |      |    |    |    |      |    |    |    |      |    |    |
|             | Rough Grade                                     |  | 32.00d            | Jun-15-2019 | Jul-30-2019  | Jul-31-2019 | Sep-13-2019 | 32.00d      | Jul-30-2019, Rough Grade   |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A5160   | Remove Cable Barrier & Mow Strip - Section 7   | 4.00d             | Jun-15-2019 | Jun-19-2019  | Jul-31-2019 | Aug-03-2019 | 32.00d      | Remove Cable Barrier & Mow Strip - Section 7   |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A5170   | Remove Top Soil - Section 7  | 8.00d             | Jun-20-2019 | Jun-28-2019  | Aug-07-2019 | Aug-15-2019 | 32.00d      | Remove Top Soil - Section 7  |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A5180   | Rough Grade to Subgrade NB - Section 7   | 10.00d            | Jul-01-2019 | Jul-13-2019  | Aug-16-2019 | Aug-27-2019 | 32.00d      | Rough Grade to Subgrade NB - Section 7   |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A5190   | Rough Grade to Subgrade SB - Section 7   | 10.00d            | Jul-15-2019 | Jul-30-2019  | Aug-28-2019 | Sep-13-2019 | 32.00d      | Rough Grade to Subgrade SB - Section 7   |    |      |    |    |    |      |    |    |    |      |    |    |
|             | Fine Grade                                      |  | 17.00d            | Jul-15-2019 | Aug-09-2019  | Sep-18-2019 | Oct-11-2019 | 45.00d      | Aug-09-2019, Fine Grade  |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A5200   | Fine Grade Subgrade NB - Section 7   | 7.00d             | Jul-15-2019 | Jul-26-2019  | Sep-18-2019 | Sep-25-2019 | 45.00d      | Fine Grade Subgrade NB - Section 7   |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A5210   | Fine Grade Subgrade SB - Section 7   | 7.00d             | Jul-31-2019 | Aug-09-2019  | Oct-02-2019 | Oct-11-2019 | 45.00d      | Fine Grade Subgrade SB - Section 7   |    |      |    |    |    |      |    |    |    |      |    |    |
|             | Drainage  |  | 7.00d             | Jul-01-2019 | Jul-10-2019  | Sep-10-2019 | Sep-17-2019 | 48.00d      | Jul-10-2019, Drainage  |    |      |    |    |    |      |    |    |    |      |    |    |
|             | Storm Drain Pipe                                |  | 5.00d             | Jul-01-2019 | Jul-08-2019  | Sep-10-2019 | Sep-14-2019 | 48.00d      | Jul-08-2019, Storm Drain Pipe  |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A5220   | Install F-2 to F-4 - Section 7   | 5.00d             | Jul-01-2019 | Jul-08-2019  | Sep-10-2019 | Sep-14-2019 | 48.00d      | Install F-2 to F-4 - Section 7   |    |      |    |    |    |      |    |    |    |      |    |    |
|             | Drainage Structures                             |  | 2.00d             | Jul-09-2019 | Jul-10-2019  | Sep-16-2019 | Sep-17-2019 | 48.00d      | Jul-10-2019, Drainage Structures   |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A5230   | Construct F-2 to F-4 Drop Inlets - Section 7   | 2.00d             | Jul-09-2019 | Jul-10-2019  | Sep-16-2019 | Sep-17-2019 | 48.00d      | Construct F-2 to F-4 Drop Inlets - Section 7   |    |      |    |    |    |      |    |    |    |      |    |    |
|             | Signs   |  | 4.00d             | Jul-01-2019 | Jul-04-2019  | Sep-13-2019 | Sep-17-2019 | 51.00d      | Jul-04-2   |    |      |    |    |    |      |    |    |    |      |    |    |

 Primary Baseline
  Critical Remaining Work
  Summary

 Actual Work
  Baseline Milestone

 Remaining Work
  Milestone

**I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow Counties**

Data Date: Sep-15-2017



| Activity ID |       |  |       |             |             |             |             |        |  | Activity Name | Original Duration | Early Start | Early Finish | Late Start | Late Finish | Total Float |  |  |    |    | 2018 |    |    |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|             |       |  |       |             |             |             |             |        |  |               |                   |             |              |            |             |             |  |  | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <div></div> | A7870 | Cure Time Bt 2 NB - Mulberry Creek - Stage 2 | 7.00d | Nov-18-2018 | Nov-24-2018 | Feb-09-2019 | Feb-15-2019 | 83.00d |  |               |                   |             |              |            |             |             |  |  |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

 Primary Baseline   
  Critical Remaining Work   
  Summary

 Actual Work   
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PI No. 110610, Gwinnett & Barrow Counties**

Data Date: Sep-15-2017

| Activity ID |  | Activity Name | Original Duration                   | Early Start | Early Finish | Late Start  | Late Finish | Total Float | 2018    |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    |
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|             |  |               |                                     |             |              |             |             |             | Q3      | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    |
|             |  | A6520         | Install ITS Cabinets SB - Section 7 | 1.00d       | Oct-22-2019  | Oct-22-2019 | Jul-11-2020 | Jul-11-2020 | 151.00d |    |      |    |    |    |      |    |    |    |      |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | </ |

 Primary Baseline
  Critical Remaining Work
  Summary

 Actual Work
  Baseline Milestone

 Remaining Work
  Milestone

**I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow Counties**

Data Date: Sep-15-2017

[illegible]

 Primary Baseline   
  Critical Remaining Work   
  Summary  
 Actual Work   
  Baseline Milestone  
 Remaining Work   
  Milestone

**I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow Counties**

Data Date: Sep-15-2017

| <div><div>CWM</div><div>CONTRACTING CO.</div></div>  |  | C. W. Matthews Contracting Co., Inc. |  | Proposal Schedule |             |              |            |             |             |    |    |      |    | Submitted: August 25, 2017<br>Page 34 of 44 |    |      |    |    |    |      |    |    |    |      |    |    |
|--|--|--------------------------------------|--|-------------------|-------------|--------------|------------|-------------|-------------|----|----|------|----|---|----|------|----|----|----|------|----|----|----|------|----|----|
| Activity ID  |  | Activity Name                        |  | Original Duration | Early Start | Early Finish | Late Start | Late Finish | Total Float |    |    | 2018 |    |   |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |    |
|  |  |                                      |  |                   |             |              |            |             |             | Q3 | Q4 | Q1   | Q2 | Q3  | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 |
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|  |                                      |  |                   |             |              |            |             |             |    |    |      |    |   |    |      |    |    |    |      |    |    |    |      |    |    |

| Activity ID |                     | Activity Name   | Original Duration | Early Start | Early Finish | Late Start  | Late Finish | Total Float |    |    | 2018 |    |    |    | 2019 |    |    |    | 2020 |    |    |  | 2021 |  |  |
|-------------|---------------------|---|-------------------|-------------|--------------|-------------|-------------|-------------|----|----|------|----|----|----|------|----|----|----|------|----|----|--|------|--|--|
|             |                     |   |                   |             |              |             |             |             | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 |  |      |  |  |
| <div></div> | A7420               | Remove Top Soil - Section 9                               | 8.00d             | Jun-20-2019 | Jun-28-2019  | Jun-21-2019 | Jul-01-2019 | 1.00d       |    |    |      |    |    |    |      |    |    |    |      |    |    |  |      |  |  |
|             | A7430               | Rough Grade to Subgrade NB - Section 9                    | 10.00d            | Jul-01-2019 | Jul-13-2019  | Jul-02-2019 | Jul-15-2019 | 1.00d       |    |    |      |    |    |    |      |    |    |    |      |    |    |  |      |  |  |
|             | A7440               | Rough Grade to Subgrade SB - Section 9                    | 10.00d            | Jul-15-2019 | Jul-30-2019  | Jul-18-2019 | Jul-31-2019 | 1.00d       |    |    |      |    |    |    |      |    |    |    |      |    |    |  |      |  |  |
|             | Fine Grade          |   | 14.00d            | Jul-24-2019 | Aug-10-2019  | Aug-01-2019 | Aug-22-2019 | 10.00d      |    |    |      |    |    |    |      |    |    |    |      |    |    |  |      |  |  |
|             | A7450               | Fine Grade Subgrade NB - Section 9                        | 7.00d             | Jul-24-2019 | Jul-31-2019  | Aug-01-2019 | Aug-10-2019 | 7.00d       |    |    |      |    |    |    |      |    |    |    |      |    |    |  |      |  |  |
|             | A7460               | Fine Grade Subgrade SB - Section 9                        | 7.00d             | Aug-01-2019 | Aug-10-2019  | Aug-15-2019 | Aug-22-2019 | 10.00d      |    |    |      |    |    |    |      |    |    |    |      |    |    |  |      |  |  |
|             | Drainage            |   | 14.00d            | Jul-01-2019 | Jul-20-2019  | Jul-11-2019 | Jul-31-2019 | 7.00d       |    |    |      |    |    |    |      |    |    |    |      |    |    |  |      |  |  |
|             | Storm Drain Pipe    |   | 10.00d            | Jul-01-2019 | Jul-13-2019  | Jul-11-2019 | Jul-26-2019 | 7.00d       |    |    |      |    |    |    |      |    |    |    |      |    |    |  |      |  |  |
|             | A7470               | Install H-2 to H-8 - Section 9                            | 10.00d            | Jul-01-2019 | Jul-13-2019  | Jul-11-2019 | Jul-26-2019 | 7.00d       |    |    |      |    |    |    |      |    |    |    |      |    |    |  |      |  |  |
|             | Drainage Structures |   | 4.00d             | Jul-15-2019 | Jul-20-2019  | Jul-27-2019 | Jul-31-2019 | 7.00d       |    |    |      |    |    |    |      |    |    |    |      |    |    |  |      |  |  |
|             | A7480               | Construct H-Series Drop Inlets - Section 9                | 4.00d             | Jul-15-2019 | Jul-20-2019  | Jul-27-2019 | Jul-31-2019 | 7.00d       |    |    |      |    |    |    |      |    |    |    |      |    |    |  |      |  |  |
|             | Barrier Wall        |   | 26.00d            | Jul-31-2019 | Sep-05-2019  | Aug-01-2019 | Sep-20-2019 | 12.00d      |    |    |      |    |    |    |      |    |    |    |      |    |    |  |      |  |  |
|             | A7490               | Fine Grade Barrier Wall Pad - Section 9                   | 3.00d             | Jul-31-2019 | Aug-02-2019  | Aug-01-2019 | Aug-03-2019 | 1.00d       |    |    |      |    |    |    |      |    |    |    |      |    |    |  |      |  |  |
|             | A7500               | Pour Barrier Wall Footings - Section 9                    | 4.00d             | Jul-31-2019 | Aug-03-2019  | Aug-01-2019 | Aug-07-2019 | 1.00d       |    |    |      |    |    |    |      |    |    |    |      |    |    |  |      |  |  |
|             | A7510               | Slip Barrier Wall - Section 9                             | 16.00d            | Aug-07-2019 | Aug-24-2019  | Aug-08-2019 | Aug-26-2019 | 1.00d       |    |    |      |    |    |    |      |    |    |    |      |    |    |  |      |  |  |
|             | A17500              | Construct Pad & Install Emergency Access Gate - Section 9 | 6.00d             | Aug-26-2019 | Sep-05-2019  | Sep-14-2019 | Sep-20-2019 | 12.00d      |    |    |      |    |    |    |      |    |    |    |      |    |    |  |      |  |  |
|             | Base & Paving       |   | 40.00d            | Aug-01-2019 | Sep-24-2019  | Aug-12-2019 | Sep-25-2019 | 1.00d       |    |    |      |    |    |    |      |    |    |    |      |    |    |  |      |  |  |
|             | Graded Aggr. Base   |   | 33.00d            | Aug-01-2019 | Sep-16-2019  | Aug-12-2019 | Sep-17-2019 | 1.00d       |    |    |      |    |    |    |      |    |    |    |      |    |    |  |      |  |  |
|             | A7530               | Place GAB NB - Section 9                                  | 10.00d            | Aug-01-2019 | Aug-14-2019  | Aug-12-2019 | Aug-22-2019 | 7.00d       |    |    |      |    |    |    |      |    |    |    |      |    |    |  |      |  |  |
|             | A7540               | Place GAB SB - Section 9                                  | 10.00d            | Aug-15-2019 | Aug-26-2019  | Aug-23-2019 | Sep-09-2019 | 7.00d       |    |    |      |    |    |    |      |    |    |    |      |    |    |  |      |  |  |
|             | A7550               | Fine Grade GAB NB - Section 9                             | 7.00d             | Aug-26-2019 | Sep-06-2019  | Aug-27-2019 | Sep-09-2019 | 1.00d       |    |    |      |    |    |    |      |    |    |    |      |    |    |  |      |  |  |
|             | A7560               | Fine Grade GAB SB - Section 9                             | 7.00d             | Sep-09-2019 | Sep-16-2019  | Sep-10-2019 | Sep-17-2019 | 1.00d       |    |    |      |    |    |    |      |    |    |    |      |    |    |  |      |  |  |
|             | Asphalt             |   | 14.00d            | Sep-09-2019 | Sep-24-2019  | Sep-12-2019 | Sep-25-2019 | 1.00d       |    |    |      |    |    |    |      |    |    |    |      |    |    |  |      |  |  |
|             | A7570               | Place 25mm Asphaltic Concrete NB - Section 9              | 5.00d             | Sep-09-2019 | Sep-13-2019  | Sep-12-2019 | Sep-17-2019 | 3.00d       |    |    |      |    |    |    |      |    |    |    |      |    |    |  |      |  |  |
|             | A7590               | Place 19mm Asphaltic Concrete NB - Section 9              | 2.00d             | Sep-14-2019 | Sep-16-2019  | Sep-21-2019 | Sep-23-2019 | 6.00d       |    |    |      |    |    |    |      |    |    |    |      |    |    |  |      |  |  |
|             | A7580               | Place 25mm Asphaltic Concrete                             |                   |             |              |             |             |             |    |    |      |    |    |    |      |    |    |    |      |    |    |  |      |  |  |


 Primary Baseline
  Critical Remaining Work
  Summary

 Actual Work
  Baseline Milestone

 Remaining Work
  Milestone

**I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow Counties**

Data Date: Sep-15-2017

|    |  | C. W. Matthews Contracting Co., Inc. |  | Proposal Schedule |             |              |            |             |             |    |    |      |    | Submitted: August 25, 2017<br>Page 36 of 44 |    |      |    |    |    |      |    |    |  |      |  |  |
|---|--|--------------------------------------|--|-------------------|-------------|--------------|------------|-------------|-------------|----|----|------|----|---|----|------|----|----|----|------|----|----|--|------|--|--|
| Activity ID   |  | Activity Name                        |  | Original Duration | Early Start | Early Finish | Late Start | Late Finish | Total Float |    |    | 2018 |    |   |    | 2019 |    |    |    | 2020 |    |    |  | 2021 |  |  |
|   |  |                                      |  |                   |             |              |            |             |             | Q3 | Q4 | Q1   | Q2 | Q3  | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 |  |      |  |  |
| 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[illegible]

 Primary Baseline
  Critical Remaining Work
  Summary

 Actual Work
  Baseline Milestone

 Remaining Work
  Milestone

**I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow Counties**

Data Date: Sep-15-2017

| Activity ID |  | Activity Name   | Original Duration | Early Start | Early Finish | Late Start  | Late Finish | Total Float | 2018    |    |    |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |  |  |
|-------------|--|---|-------------------|-------------|--------------|-------------|-------------|-------------|---------|----|----|----|------|----|----|----|------|----|----|----|------|--|--|
|             |  |   |                   |             |              |             |             |             | Q3      | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   |  |  |
| I-85        | Traffic Control                                  |   | 2.00d             | Dec-19-2019 | Dec-20-2019  | Apr-24-2020 | Apr-27-2020 | 66.00d      |         |    |    |    |      |    |    |    |      |    |    |    |      |  |  |
|             | A16790   | Shift Traffic to New Alignment - NB Segment 4                                   | 2.00d             | Dec-19-2019 | Dec-20-2019  | Apr-24-2020 | Apr-27-2020 | 66.00d      |         |    |    |    |      |    |    |    |      |    |    |    |      |  |  |
|             | I-85 Southbound                                  |   | 12.00d            | Dec-19-2019 | Jan-22-2020  | Dec-19-2019 | May-14-2020 | 69.00d      |         |    |    |    |      |    |    |    |      |    |    |    |      |  |  |
|             | Paving   |   | 12.00d            | Dec-19-2019 | Jan-22-2020  | Dec-19-2019 | May-14-2020 | 69.00d      |         |    |    |    |      |    |    |    |      |    |    |    |      |  |  |
|             | A16800   | Place 12.5mm SMA Asphaltic Concrete - Inside Shoulder & Lane 1 - SB - Segment 4 | 5.00d             | Dec-19-2019 | Jan-08-2020  | Dec-19-2019 | Jan-08-2020 | 0.00d       |         |    |    |    |      |    |    |    |      |    |    |    |      |  |  |
|             | A16810   | Place 12.5mm SMA Asphaltic Concrete - Lane 2 & Lane 3 - SB - Segment 4          | 5.00d             | Jan-16-2020 | Jan-22-2020  | May-09-2020 | May-14-2020 | 69.00d      |         |    |    |    |      |    |    |    |      |    |    |    |      |  |  |
|             | Traffic Control                                  |   | 2.00d             | Jan-09-2020 | Jan-10-2020  | Jan-09-2020 | Jan-10-2020 | 0.00d       |         |    |    |    |      |    |    |    |      |    |    |    |      |  |  |
|             | A16820   | Shift Traffic to New Alignment - SB Segment 4                                   | 2.00d             | Jan-09-2020 | Jan-10-2020  | Jan-09-2020 | Jan-10-2020 | 0.00d       |         |    |    |    |      |    |    |    |      |    |    |    |      |  |  |
|             | Stage 4 - Construct Bridge, ITS & Sound Barriers |   |                   | 258.00d     | Mar-26-2019  | May-14-2020 | Sep-25-2019 | Jul-14-2020 | 39.00d  |    |    |    |      |    |    |    |      |    |    |    |      |  |  |
|             | Section 9  |   |                   | 60.00d      | Oct-02-2019  | Jan-25-2020 | Dec-19-2019 | Jul-14-2020 | 107.00d |    |    |    |      |    |    |    |      |    |    |    |      |  |  |
|             | I-85 Northbound                                  |   |                   | 60.00d      | Oct-02-2019  | Jan-25-2020 | Apr-17-2020 | Jul-14-2020 | 107.00d |    |    |    |      |    |    |    |      |    |    |    |      |  |  |
|             | Clearing   |   |                   | 4.00d       | Oct-14-2019  | Oct-18-2019 | Apr-17-2020 | Apr-21-2020 | 99.00d  |    |    |    |      |    |    |    |      |    |    |    |      |  |  |
|             | A7050  | Clear for ITS & Signs NB - Section 9  | 4.00d             | Oct-14-2019 | Oct-18-2019  | Apr-17-2020 | Apr-21-2020 | 99.00d      |         |    |    |    |      |    |    |    |      |    |    |    |      |  |  |
|             | Guardrail  |   |                   | 13.00d      | Oct-02-2019  | Oct-19-2019 | Apr-30-2020 | May-14-2020 | 115.00d |    |    |    |      |    |    |    |      |    |    |    |      |  |  |
|             | A6880  | Remove Existing Guardrail NB - Section 9  | 6.00d             | Oct-02-2019 | Oct-10-2019  | Apr-30-2020 | May-06-2020 | 115.00d     |         |    |    |    |      |    |    |    |      |    |    |    |      |  |  |
|             | A6900  | Install New Guardrail NB - Section 9  | 7.00d             | Oct-11-2019 | Oct-19-2019  | May-07-2020 | May-14-2020 | 115.00d     |         |    |    |    |      |    |    |    |      |    |    |    |      |  |  |
|             | Signs  |   |                   | 3.00d       | Oct-19-2019  | Oct-22-2019 | May-12-2020 | May-14-2020 | 113.00d |    |    |    |      |    |    |    |      |    |    |    |      |  |  |
|             | A15130   | Construct Shoulder Sign Foundations (1) NB - Section 9                          | 2.00d             | Oct-19-2019 | Oct-21-2019  | May-12-2020 | May-13-2020 | 113.00d     |         |    |    |    |      |    |    |    |      |    |    |    |      |  |  |
|             | A15140   | Install Overhead Sign Structures (1) NB - Section 9                             | 1.00d             | Oct-22-2019 | Oct-22-2019  | May-14-2020 | May-14-2020 | 113.00d     |         |    |    |    |      |    |    |    |      |    |    |    |      |  |  |
|             | ITS  |   |                   | 48.00d      | Oct-19-2019  | Jan-25-2020 | Apr-22-2020 | Jul-14-2020 | 107.00d |    |    |    |      |    |    |    |      |    |    |    |      |  |  |
|             | Fiber Optic Trunk Line                           |   |                   | 28.00d      | Nov-20-2019  | Jan-25-2020 | Apr-22-2020 | Jun-29-2020 | 97.00d  |    |    |    |      |    |    |    |      |    |    |    |      |  |  |
|             | A6980  | Install Duct Bank NB - Section 9  | 14.00d            | Nov-20-2019 | Dec-14-2019  | Apr-22-2020 | May-11-2020 | 79.00d      |         |    |    |    |      |    |    |    |      |    |    |    |      |  |  |
|             | A6990  | Install Pull Boxes NB - Section 9   | 4.00d             | Dec-16-2019 | Jan-06-2020  | Jun-11-2020 | Jun-15-2020 | 97.00d      |         |    |    |    |      |    |    |    |      |    |    |    |      |  |  |
|             | A7000  | Install & Splice Fiber Optic Cable NB - Section 9                               | 10.00d            | Jan-07-2020 | Jan-25-2020  | Jun-16-2020 | Jun-29-2020 | 97.00d      |         |    |    |    |      |    |    |    |      |    |    |    |      |  |  |
|             | Electrical                                       |   |                   | 24.00d      | Oct-19-2019  | Nov-29-2019 | Jun-11-2020 | Jul-14-2020 | 131.00d |    |    |    |      |    |    |    |      |    |    |    |      |  |  |

 Primary Baseline      Critical Remaining Work      Summary  
 Actual Work      Baseline Milestone  
 Remaining Work      Milestone

**I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow Counties**

Data Date: Sep-15-2017



| Activity ID |             | Activity Name          | Original Duration   | Early Start | Early Finish | Late Start  | Late Finish | Total Float | 2018                                  |   |    |    |    |    |    |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |  |  |  |
|-------------|-------------|------------------------|---|-------------|--------------|-------------|-------------|-------------|---------------------------------------|---|----|----|----|----|----|----|------|----|----|----|------|----|----|----|------|--|--|--|
|             |             |                        |   |             |              |             |             |             | Q3                                    | Q4  | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   |  |  |  |
| <div></div> | <div></div> | Clearing               | 150.00d   | Mar-26-2019 | Oct-29-2019  | Sep-25-2019 | Jun-02-2020 | 119.00d     | ▶ Oct-29-2019; Clearing               |   |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
|             |             | A11050                 | Clear and Grub for SB 3 - NB - Section 11                 | 10.00d      | Mar-26-2019  | Apr-10-2019 | Sep-25-2019 | Oct-10-2019 | 126.00d                               | ■ Clear and Grub for SB; 3 : NB : Section 11                |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
|             |             | A10640                 | Clear for ITS NB - Section 11                             | 4.00d       | Oct-25-2019  | Oct-29-2019 | May-27-2020 | Jun-02-2020 | 119.00d                               | ▮ Clear for ITS;NB - Section 11                             |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
|             |             | Sound Barrier 3        | 62.00d  | Apr-11-2019 | Jul-10-2019  | Oct-11-2019 | Feb-03-2020 | 123.00d     | ▶ Jul-10-2019; Sound Barrier 3        |   |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
|             |             | A11300                 | Rough Grade for Sound Barrier - Section 11                | 6.00d       | Apr-11-2019  | Apr-17-2019 | Oct-11-2019 | Oct-18-2019 | 126.00d                               | ▮ Rough Grade for Sound Barrier - Section 11                |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
|             |             | A11310                 | Install Posts SB 3 - Posts 1-40 - Section 11              | 14.00d      | Apr-18-2019  | May-04-2019 | Oct-19-2019 | Nov-05-2019 | 138.00d                               | ■ Install Posts;SB 3 - Posts 1-40 - Section 11              |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
|             |             | A11320                 | Install Posts SB 3 - Posts 40-80 - Section 11             | 14.00d      | May-06-2019  | May-21-2019 | Nov-06-2019 | Nov-26-2019 | 138.00d                               | ■ Install Posts;SB 3 - Posts 40-80 - Section 11             |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
|             |             | A11330                 | Install Panels SB 3 - Posts 1-40 - Section 11             | 12.00d      | May-06-2019  | May-18-2019 | Dec-14-2019 | Jan-16-2020 | 164.00d                               | ▮ Install Panels;SB 3- Posts 1-40- Section 11               |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
|             |             | A11340                 | Install Panels SB 3 - Posts 40-80 - Section 11            | 14.00d      | May-22-2019  | Jun-13-2019 | Dec-12-2019 | Jan-16-2020 | 148.00d                               | ■ Install Panels;SB 3- Posts 40-80 - Section 11             |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
|             |             | A11350                 | Install Posts SB 3 - Posts 80-105 - Section 11            | 12.00d      | May-22-2019  | Jun-08-2019 | Nov-27-2019 | Dec-13-2019 | 138.00d                               | ■ Install Posts;SB 3 - Posts 80-105 - Section 11            |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
|             |             | A11360                 | Install Panels SB 3 - Posts 80-105 - Section 11           | 12.00d      | Jun-10-2019  | Jun-25-2019 | Dec-14-2019 | Jan-16-2020 | 138.00d                               | ▮ Install Panels;SB 3 - Posts 80-105 - Section 11           |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
|             |             | A11370                 | Dress & Grass Slopes - SB 3 - Section 11                  | 10.00d      | Jun-26-2019  | Jul-10-2019 | Jan-17-2020 | Feb-03-2020 | 123.00d                               | ▮ Dress & Grass;Slopes- SB;3 : Section 11                   |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
|             |             | Guardrail              | 13.00d  | Jan-06-2020 | Jan-30-2020  | Apr-30-2020 | May-14-2020 | 66.00d      | ▼ Jan-30-2020; Guardrail              |   |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
|             |             | A10440                 | Remove Existing Guardrail NB - Section 11                 | 6.00d       | Jan-06-2020  | Jan-16-2020 | Apr-30-2020 | May-06-2020 | 66.00d                                | ▮ Remove Existing Guardrail;NB - Section 11                 |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
|             |             | A10460                 | Install New Guardrail NB - Section 11                     | 7.00d       | Jan-17-2020  | Jan-30-2020 | May-07-2020 | May-14-2020 | 66.00d                                | ■ Install New Guardrail NB - Section 11                     |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
|             |             | ITS                    | 68.00d  | Oct-30-2019 | Mar-16-2020  | Jun-04-2020 | Jul-14-2020 | 79.00d      | ▶ Mar-16-2020; ITS                    |   |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
|             |             | Fiber Optic Trunk Line | 28.00d  | Jan-27-2020 | Mar-16-2020  | Jun-04-2020 | Jul-14-2020 | 79.00d      | ▶ Mar-16-2020; Fiber Optic Trunk Line |   |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
|             |             | A10540                 | Install Duct Bank NB - Section 11                         | 14.00d      | Jan-27-2020  | Feb-21-2020 | Jun-04-2020 | Jun-22-2020 | 79.00d                                | ■ Install Duct Bank NB - Section 11                         |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
|             |             | A10550                 | Install Pull Boxes NB - Section 11                        | 4.00d       | Feb-24-2020  | Feb-27-2020 | Jun-23-2020 | Jun-29-2020 | 79.00d                                | ▮ Install Pull Boxes NB - Section 11                        |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
|             |             | A10560                 | Install & Splice Fiber Optic Cable NB - Section 11        | 10.00d      | Mar-02-2020  | Mar-16-2020 | Jun-30-2020 | Jul-14-2020 | 79.00d                                | ▮ Install & Splice Fiber Optic Cable NB - Section 11        |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
|             |             | Electrical             | 24.00d  | Oct-30-2019 | Dec-12-2019  | Jun-11-2020 | Jul-14-2020 | 123.00d     | ▼ Dec-12-2019; Electrical             |   |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
|             |             | A10570                 | Install Electrical Conduit NB - Section 11                | 14.00d      | Oct-30-2019  | Nov-25-2019 | Jun-11-2020 | Jun-29-2020 | 123.00d                               | ■ Install Electrical Conduit NB - Section 11                |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
|             |             | A10590                 | Install Power Service Points NB - Section 11              | 2.00d       | Oct-30-2019  | Nov-01-2019 | Jul-11-2020 | Jul-14-2020 | 145.00d                               | ▮ Install Power Service Points;NB - Section 11              |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
|             |             | A10580                 | Install Electrical Conductors & Equipment NB - Section 11 | 10.00d      | Nov-26-2019  | Dec-12-2019 | Jun-30-2020 | Jul-14-2020 | 123.00d                               | ▮ Install Electrical Conductors & Equipment NB - Section 11 |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
|             |             | Structures             | 1.00d   | Oct-30-2019 | Oct-30-2019  | Jul-10-2020 | Jul-10-2020 | 144.00d     | ▼ Oct-30-2019; Structures             |   |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
|             |             | A10600                 | Install ITS Structures NB (2) - Section 11                | 1.00d       | Oct-30-2019  | Oct-30-2019 | Jul-10-2020 | Jul-10-2020 | 144.00d                               | ▮ Install ITS;Structures NB (2)- Section 11                 |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
|             |             | Cabinets & Devices     | 2.00d   | Nov-01-2019 | Nov-04-2019  | Jul-11-2020 | Jul-14-2020 | 144.00d     | ▼ Nov-04-2019; Cabinets & Devices     |   |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
|             |             | A10610                 | Install ITS Cabinets NB - Section 11                      | 1.00d       | Nov-01-2019  | Nov-01-2019 | Jul-11-2020 | Jul-11-2020 | 144.00d                               | ▮ Install ITS Cabinets NB - Section 11                      |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
|             |             | A10620                 | Install ITS Devices NB - Section 11                       | 1.00d       | Nov-04-2019  | Nov-04-2019 | Jul-14-2020 | Jul-14-2020 | 144.00d                               | ▮ Install ITS Devices NB - Section 11                       |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
|             |             | I-85 Southbound        | 105.00d   | Nov-05-2019 | May-14-2020  | Jan-16-2020 |             |             |                                       |   |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |

 Primary Baseline
  Critical Remaining Work
  Summary

 Actual Work
  Baseline Milestone

 Remaining Work
  Milestone

**I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow Counties**

Data Date: Sep-15-2017

| Activity ID |                        | Activity Name   |   | Original Duration | Early Start | Early Finish | Late Start  | Late Finish | Total Float   | 2018  |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |    |
|-------------|------------------------|---|---|-------------------|-------------|--------------|-------------|-------------|---|---|----|------|----|----|----|------|----|----|----|------|----|----|
|             |                        |   |   |                   |             |              |             |             |   | Q3  | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 |
| <div></div> | <div></div>            | ITS   |   | 38.00d            | Nov-14-2019 | Feb-03-2020  | Feb-14-2020 | Jul-14-2020 | 102.00d   | <div></div> Feb-03-2020, ITS  |    |      |    |    |    |      |    |    |    |      |    |    |
|             |                        | Fiber Optic Trunk Line                                      |   | 28.00d            | Dec-03-2019 | Feb-03-2020  | Feb-14-2020 | Jul-14-2020 | 102.00d   | <div></div> Feb-03-2020, Fiber Optic Trunk Line                       |    |      |    |    |    |      |    |    |    |      |    |    |
|             |                        | A10650  | Install Duct Bank SB - Section 11                         | 14.00d            | Dec-03-2019 | Jan-07-2020  | Feb-14-2020 | Mar-09-2020 | 32.00d  | <div></div> Install Duct Bank SB - Section 11                         |    |      |    |    |    |      |    |    |    |      |    |    |
|             |                        | A10660  | Install Pull Boxes SB - Section 11                        | 4.00d             | Jan-08-2020 | Jan-16-2020  | Jun-23-2020 | Jun-29-2020 | 102.00d   | <div></div> Install Pull Boxes SB - Section 11                        |    |      |    |    |    |      |    |    |    |      |    |    |
|             |                        | A10670  | Install & Splice Fiber Optic Cable SB - Section 11        | 10.00d            | Jan-17-2020 | Feb-03-2020  | Jun-30-2020 | Jul-14-2020 | 102.00d   | <div></div> Install & Splice Fiber Optic Cable SB - Section 11        |    |      |    |    |    |      |    |    |    |      |    |    |
|             |                        | Electrical  |   | 24.00d            | Nov-14-2019 | Jan-07-2020  | Jun-11-2020 | Jul-14-2020 | 116.00d   | <div></div> Jan-07-2020, Electrical                                   |    |      |    |    |    |      |    |    |    |      |    |    |
|             |                        | A10680  | Install Electrical Conduit SB - Section 11                | 14.00d            | Nov-14-2019 | Dec-06-2019  | Jun-11-2020 | Jun-29-2020 | 116.00d   | <div></div> Install Electrical Conduit SB - Section 11                |    |      |    |    |    |      |    |    |    |      |    |    |
|             |                        | A10700  | Install Power Service Points SB - Section 11              | 2.00d             | Nov-14-2019 | Nov-15-2019  | Jul-11-2020 | Jul-14-2020 | 138.00d   | <div></div> Install Power Service Points SB - Section 11              |    |      |    |    |    |      |    |    |    |      |    |    |
|             |                        | A10690  | Install Electrical Conductors & Equipment SB - Section 11 | 10.00d            | Dec-07-2019 | Jan-07-2020  | Jun-30-2020 | Jul-14-2020 | 116.00d   | <div></div> Install Electrical Conductors & Equipment SB - Section 11 |    |      |    |    |    |      |    |    |    |      |    |    |
|             |                        | Structures  |   | 2.00d             | Nov-14-2019 | Nov-15-2019  | Jul-09-2020 | Jul-10-2020 | 136.00d   | <div></div> Nov-15-2019, Structures                                   |    |      |    |    |    |      |    |    |    |      |    |    |
|             |                        | A11250  | Install ITS Structures SB (2) - Section 11                | 2.00d             | Nov-14-2019 | Nov-15-2019  | Jul-09-2020 | Jul-10-2020 | 136.00d   | <div></div> Install ITS Structures SB (2) - Section 11                |    |      |    |    |    |      |    |    |    |      |    |    |
|             |                        | Cabinets & Devices  |   | 2.00d             | Nov-16-2019 | Nov-18-2019  | Jul-11-2020 | Jul-14-2020 | 136.00d   | <div></div> Nov-18-2019, Cabinets & Devices                           |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A11260                 | Install ITS Cabinets SB - Section 11                        | 1.00d   | Nov-16-2019       | Nov-16-2019 | Jul-11-2020  | Jul-11-2020 | 136.00d     | <div></div> Install ITS Cabinets SB - Section 11                        |   |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A11270                 | Install ITS Devices SB - Section 11                         | 1.00d   | Nov-18-2019       | Nov-18-2019 | Jul-14-2020  | Jul-14-2020 | 136.00d     | <div></div> Install ITS Devices SB - Section 11                         |   |    |      |    |    |    |      |    |    |    |      |    |    |
|             | Stage 5 - Final Paving |   | 47.00d  | Apr-15-2020       | Jun-22-2020 | May-15-2020  | Jun-22-2020 | 0.00d       | <div></div> Jun-22-2020, Stage 5 - Final Paving                         |   |    |      |    |    |    |      |    |    |    |      |    |    |
|             | I-85 Northbound        |   | 29.00d  | Apr-15-2020       | May-26-2020 | May-15-2020  | Jun-22-2020 | 18.00d      | <div></div> May-26-2020, I-85 Northbound                                |   |    |      |    |    |    |      |    |    |    |      |    |    |
|             | Paving                 |   | 27.00d  | Apr-15-2020       | May-20-2020 | May-15-2020  | Jun-19-2020 | 18.00d      | <div></div> May-20-2020, Paving   |   |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A16850                 | Place OGFC Asphaltic Concrete NB - Segment 4                | 5.00d   | Apr-15-2020       | Apr-20-2020 | May-15-2020  | May-20-2020 | 23.00d      | <div></div> Place OGFC Asphaltic Concrete NB - Segment 4                |   |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A16860                 | Asphalt Cure - 30 Days - NB - Segment 4                     | 30.00d  | Apr-21-2020       | May-20-2020 | May-21-2020  | Jun-19-2020 | 30.00d      | <div></div> Asphalt Cure - 30 Days - NB - Segment 4                     |   |    |      |    |    |    |      |    |    |    |      |    |    |
|             | Pavement Marking       |   | 2.00d   | May-21-2020       | May-26-2020 | Jun-20-2020  | Jun-22-2020 | 18.00d      | <div></div> May-26-2020, Pavement Marking                               |   |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A16870                 | Install Final Pavement Markings NB - Segment 4              | 2.00d   | May-21-2020       | May-26-2020 | Jun-20-2020  | Jun-22-2020 | 18.00d      | <div></div> Install Final Pavement Markings NB - Segment 4              |   |    |      |    |    |    |      |    |    |    |      |    |    |
|             | I-85 Southbound        |   | 25.00d  | May-15-2020       | Jun-22-2020 | May-15-2020  | Jun-22-2020 | 0.00d       | <div></div> Jun-22-2020, I-85 Southbound                                |   |    |      |    |    |    |      |    |    |    |      |    |    |
|             | Paving                 |   | 23.00d  | May-15-2020       | Jun-19-2020 | May-15-2020  | Jun-19-2020 | 0.00d       | <div></div> Jun-19-2020, Paving   |   |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A16880                 | Place OGFC Asphaltic Concrete SB - Segment 4                | 5.00d   | May-15-2020       | May-20-2020 | May-15-2020  | May-20-2020 | 0.00d       | <div></div> Place OGFC Asphaltic Concrete SB - Segment 4                |   |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A16890                 | Asphalt Cure - 30 Days - SB - Segment 4                     | 30.00d  | May-21-2020       | Jun-19-2020 | May-21-2020  | Jun-19-2020 | 0.00d       | <div></div> Asphalt Cure - 30 Days - SB - Segment 4                     |   |    |      |    |    |    |      |    |    |    |      |    |    |
|             | Pavement Marking       |   | 2.00d   | Jun-20-2020       | Jun-22-2020 | Jun-20-2020  | Jun-22-2020 | 0.00d       | <div></div> Jun-22-2020, Pavement Marking                               |   |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A16900                 | Install Final Pavement Markings SB - Segment 4              | 2.00d   | Jun-20-2020       | Jun-22-2020 | Jun-20-2020  | Jun-22-2020 | 0.00d       | <div></div> Install Final Pavement Markings SB - Segment 4              |   |    |      |    |    |    |      |    |    |    |      |    |    |
|             | Segment Turnover       |   | 14.00d  | Jun-23-2020       | Jul-14-2020 | Jun-23-2020  | Jul-14-2020 | 0.00d       | <div></div> Jul-14-2020, Segment Turnover                               |   |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A18860                 | Prepare/Submit Written Notice to GDOT of Segment 4 Turnover | 2.00d   | Jun-23-2020       | Jun-25-2020 | Jun-23-2020  | Jun-25-2020 | 0.00d       | <div></div> Prepare/Submit Written Notice to GDOT of Segment 4 Turnover |   |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A18870                 | GDOT Review Segment 4 for Opening to Traffic                | 5.00d   | Jun-26-2020       | Jul-02-2020 | Jun-26-2020  | Jul-02-2020 | 0.00d       | <div></div> GDOT Review Segment 4 for Opening to Traffic                |   |    |      |    |    |    |      |    |    |    |      |    |    |
|             | A18880                 | Address Corrective Items for Segment 4 Turnover             | 7.00d   |                   |             |              |             |             |   |   |    |      |    |    |    |      |    |    |    |      |    |    |

 Primary Baseline   
  Critical Remaining Work   
  Summary  
 Actual Work   
  Baseline Milestone  
 Remaining Work   
  Milestone

**I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow Counties**

Data Date: Sep-15-2017

[illegible]

 Primary Baseline      Critical Remaining Work      Summary  
 Actual Work      Baseline Milestone  
 Remaining Work      Milestone

**I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow Counties**

Data Date: Sep-15-2017

| Activity ID                     |        | Activity Name                        | Original Duration | Early Start | Early Finish | Late Start  | Late Finish | Total Float | 2018   |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |    |  |
|---------------------------------|--------|--------------------------------------|-------------------|-------------|--------------|-------------|-------------|-------------|--|----|------|----|----|----|------|----|----|----|------|----|----|--|
|                                 |        |                                      |                   |             |              |             |             |             | Q3   | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 |  |
| Construction Layout             | A18340 | Construction Layout - December 2018  | 31.00d            | Dec-01-2018 | Dec-31-2018  | Dec-02-2018 | Jan-01-2019 | 1.00d       |  |    |      |    |    |    |      |    |    |    |      |    |    |  |
|                                 | A18350 | Construction Layout - January 2019   | 31.00d            | Jan-01-2019 | Jan-31-2019  | Jan-02-2019 | Feb-01-2019 | 1.00d       |  |    |      |    |    |    |      |    |    |    |      |    |    |  |
|                                 | A18360 | Construction Layout - February 2019  | 28.00d            | Feb-01-2019 | Feb-28-2019  | Feb-02-2019 | Mar-01-2019 | 1.00d       |  |    |      |    |    |    |      |    |    |    |      |    |    |  |
|                                 | A18370 | Construction Layout - March 2019     | 31.00d            | Mar-01-2019 | Mar-31-2019  | Mar-02-2019 | Apr-01-2019 | 1.00d       |  |    |      |    |    |    |      |    |    |    |      |    |    |  |
|                                 | A18380 | Construction Layout - April 2019     | 30.00d            | Apr-01-2019 | Apr-30-2019  | Apr-02-2019 | May-01-2019 | 1.00d       |  |    |      |    |    |    |      |    |    |    |      |    |    |  |
|                                 | A18390 | Construction Layout - May 2019       | 31.00d            | May-01-2019 | May-31-2019  | May-02-2019 | Jun-01-2019 | 1.00d       |  |    |      |    |    |    |      |    |    |    |      |    |    |  |
|                                 | A18400 | Construction Layout - June 2019      | 30.00d            | Jun-01-2019 | Jun-30-2019  | Jun-02-2019 | Jul-01-2019 | 1.00d       |  |    |      |    |    |    |      |    |    |    |      |    |    |  |
|                                 | A18410 | Construction Layout - July 2019      | 31.00d            | Jul-01-2019 | Jul-31-2019  | Jul-02-2019 | Aug-01-2019 | 1.00d       |  |    |      |    |    |    |      |    |    |    |      |    |    |  |
|                                 | A18420 | Construction Layout - August 2019    | 31.00d            | Aug-01-2019 | Aug-31-2019  | Aug-02-2019 | Sep-01-2019 | 1.00d       |  |    |      |    |    |    |      |    |    |    |      |    |    |  |
|                                 | A18430 | Construction Layout - September 2019 | 30.00d            | Sep-01-2019 | Sep-30-2019  | Sep-02-2019 | Oct-01-2019 | 1.00d       |  |    |      |    |    |    |      |    |    |    |      |    |    |  |
|                                 | A18440 | Construction Layout - October 2019   | 31.00d            | Oct-01-2019 | Oct-31-2019  | Oct-02-2019 | Nov-01-2019 | 1.00d       |  |    |      |    |    |    |      |    |    |    |      |    |    |  |
|                                 | A18450 | Construction Layout - November 2019  | 30.00d            | Nov-01-2019 | Nov-30-2019  | Nov-02-2019 | Dec-01-2019 | 1.00d       |  |    |      |    |    |    |      |    |    |    |      |    |    |  |
|                                 | A18460 | Construction Layout - December 2019  | 31.00d            | Dec-01-2019 | Dec-31-2019  | Dec-02-2019 | Jan-01-2020 | 1.00d       |  |    |      |    |    |    |      |    |    |    |      |    |    |  |
|                                 | A18470 | Construction Layout - January 2020   | 31.00d            | Jan-01-2020 | Jan-31-2020  | Jan-02-2020 | Feb-01-2020 | 1.00d       |  |    |      |    |    |    |      |    |    |    |      |    |    |  |
|                                 | A18480 | Construction Layout - February 2020  | 29.00d            | Feb-01-2020 | Feb-29-2020  | Feb-02-2020 | Mar-01-2020 | 1.00d       |  |    |      |    |    |    |      |    |    |    |      |    |    |  |
|                                 | A18490 | Construction Layout - March 2020     | 31.00d            | Mar-01-2020 | Mar-31-2020  | Mar-02-2020 | Apr-01-2020 | 1.00d       |  |    |      |    |    |    |      |    |    |    |      |    |    |  |
|                                 | A18500 | Construction Layout - April 2020     | 30.00d            | Apr-01-2020 | Apr-30-2020  | Apr-02-2020 | May-01-2020 | 1.00d       |  |    |      |    |    |    |      |    |    |    |      |    |    |  |
|                                 | A18510 | Construction Layout - May 2020       | 31.00d            | May-01-2020 | May-31-2020  | May-02-2020 | Jun-01-2020 | 1.00d       |  |    |      |    |    |    |      |    |    |    |      |    |    |  |
|                                 | A18520 | Construction Layout - June 2020      | 30.00d            | Jun-01-2020 | Jun-30-2020  | Jun-02-2020 | Jul-01-2020 | 1.00d       |  |    |      |    |    |    |      |    |    |    |      |    |    |  |
|                                 | A18530 | Construction Layout - July 2020      | 13.00d            | Jul-01-2020 | Jul-13-2020  | Jul-02-2020 | Jul-14-2020 | 1.00d       |  |    |      |    |    |    |      |    |    |    |      |    |    |  |
| Maintenance During Construction |        |                                      | 740.00d           | Jul-05-2018 | Jul-13-2020  | Jul-06-2018 | Jul-14-2020 | 1.00d       | Jul-13-2020, Maintenance During Construction |    |      |    |    |    |      |    |    |    |      |    |    |  |
| Traffic Control                 |        |                                      | 740.00d           | Jul-05-2018 | Jul-13-2020  | Jul-06-2018 | Jul-14-2020 | 1.00d       | Jul-13-2020, Traffic Control                 |    |      |    |    |    |      |    |    |    |      |    |    |  |
| Traffic Control                 | A17510 | Traffic Control - July 2018          | 27.00d            | Jul-05-2018 | Jul-31-2018  | Jul-06-2018 | Aug-01-2018 | 1.00d       |  |    |      |    |    |    |      |    |    |    |      |    |    |  |
|                                 | A17520 | Traffic Control - August 2018        | 31.00d            | Aug-01-2018 | Aug-31-2018  | Aug-02-2018 | Sep-01-2018 | 1.00d       |  |    |      |    |    |    |      |    |    |    |      |    |    |  |
|                                 | A17530 | Traffic Control - September 2018     | 30.00d            | Sep-01-2018 | Sep-30-2018  | Sep         |             |             |  |    |      |    |    |    |      |    |    |    |      |    |    |  |

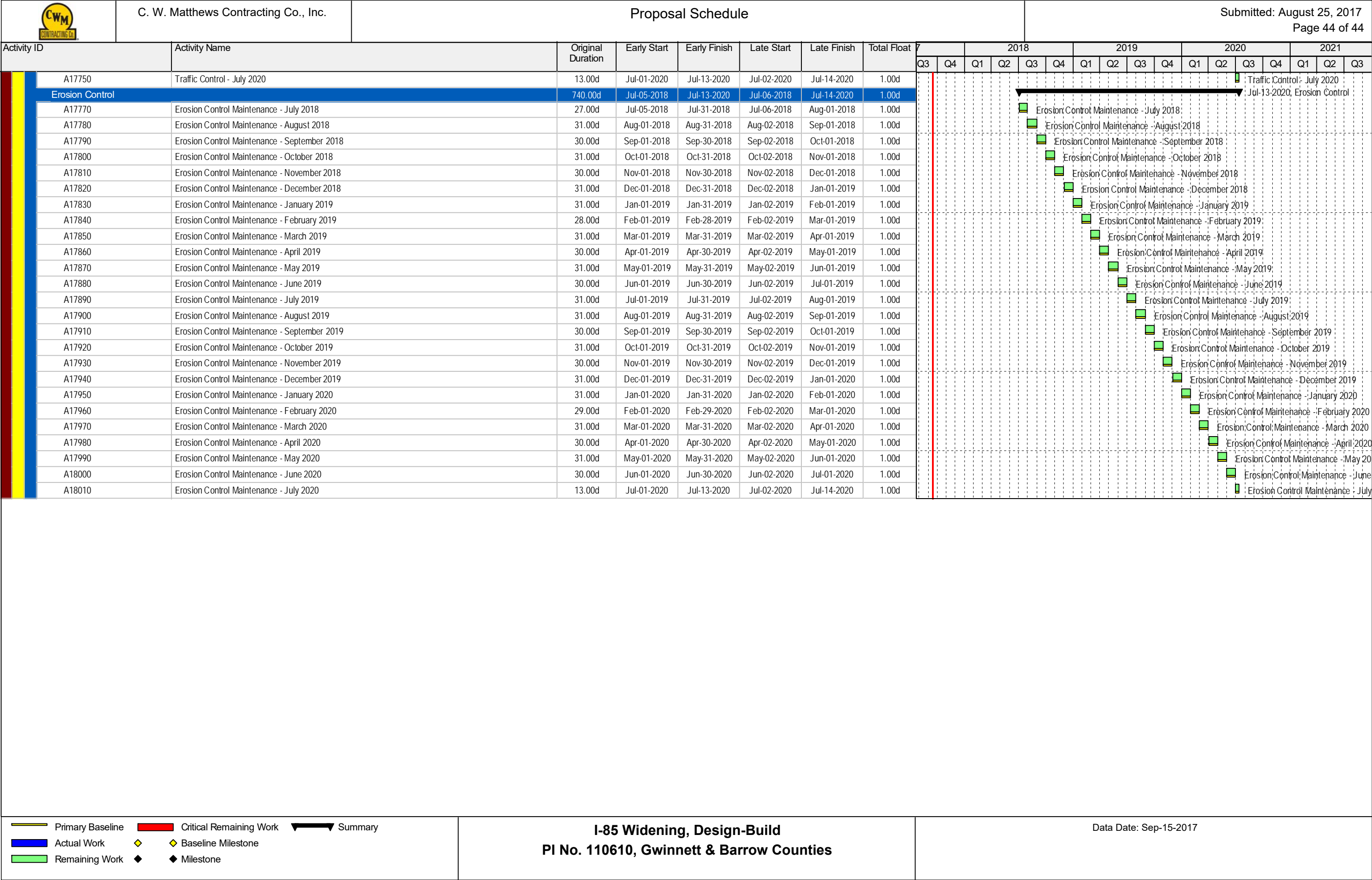
 Primary Baseline
  Critical Remaining Work
  Summary

 Actual Work
  Baseline Milestone

 Remaining Work
  Milestone

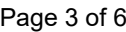
**I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow Counties**

Data Date: Sep-15-2017



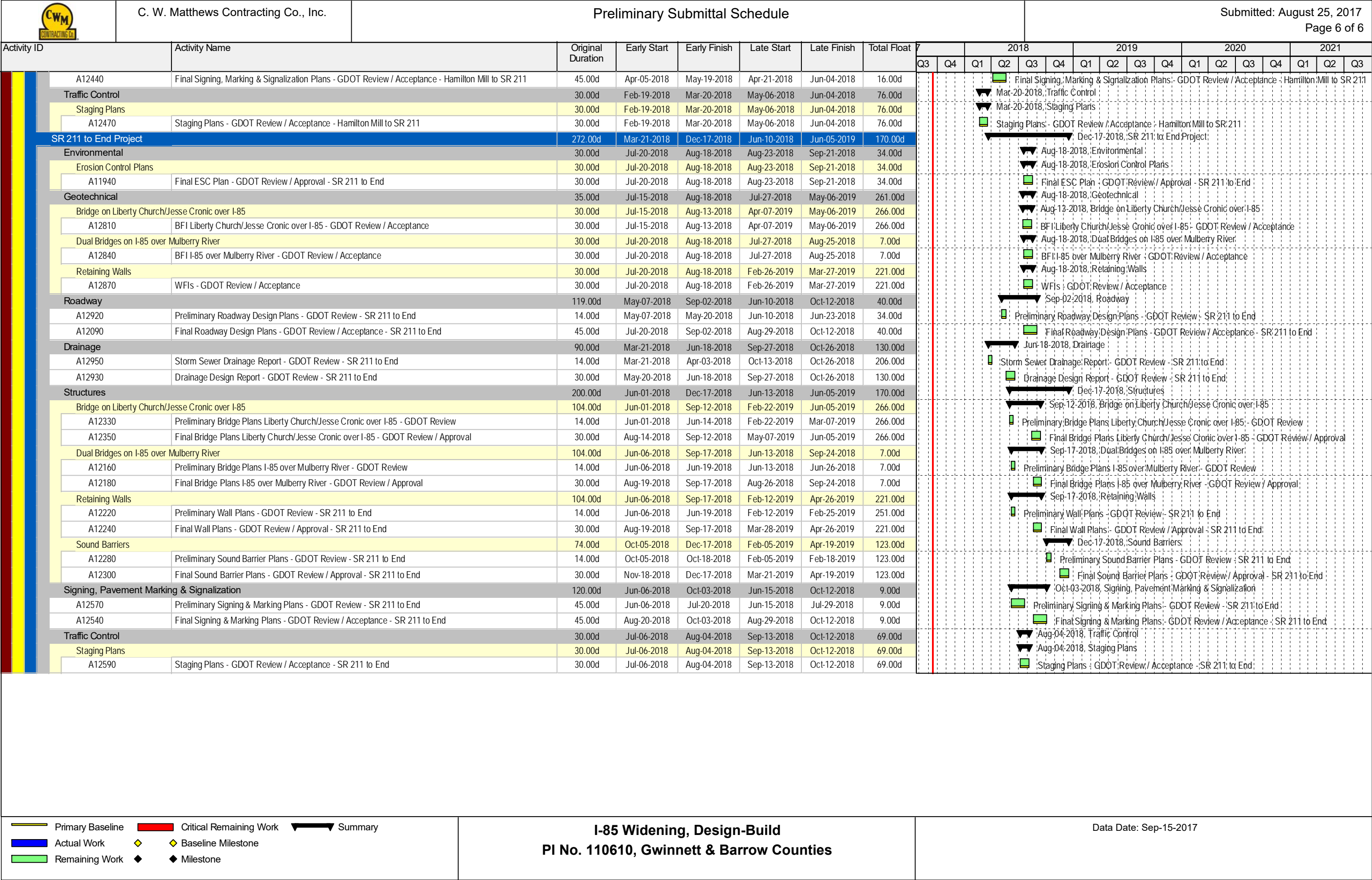




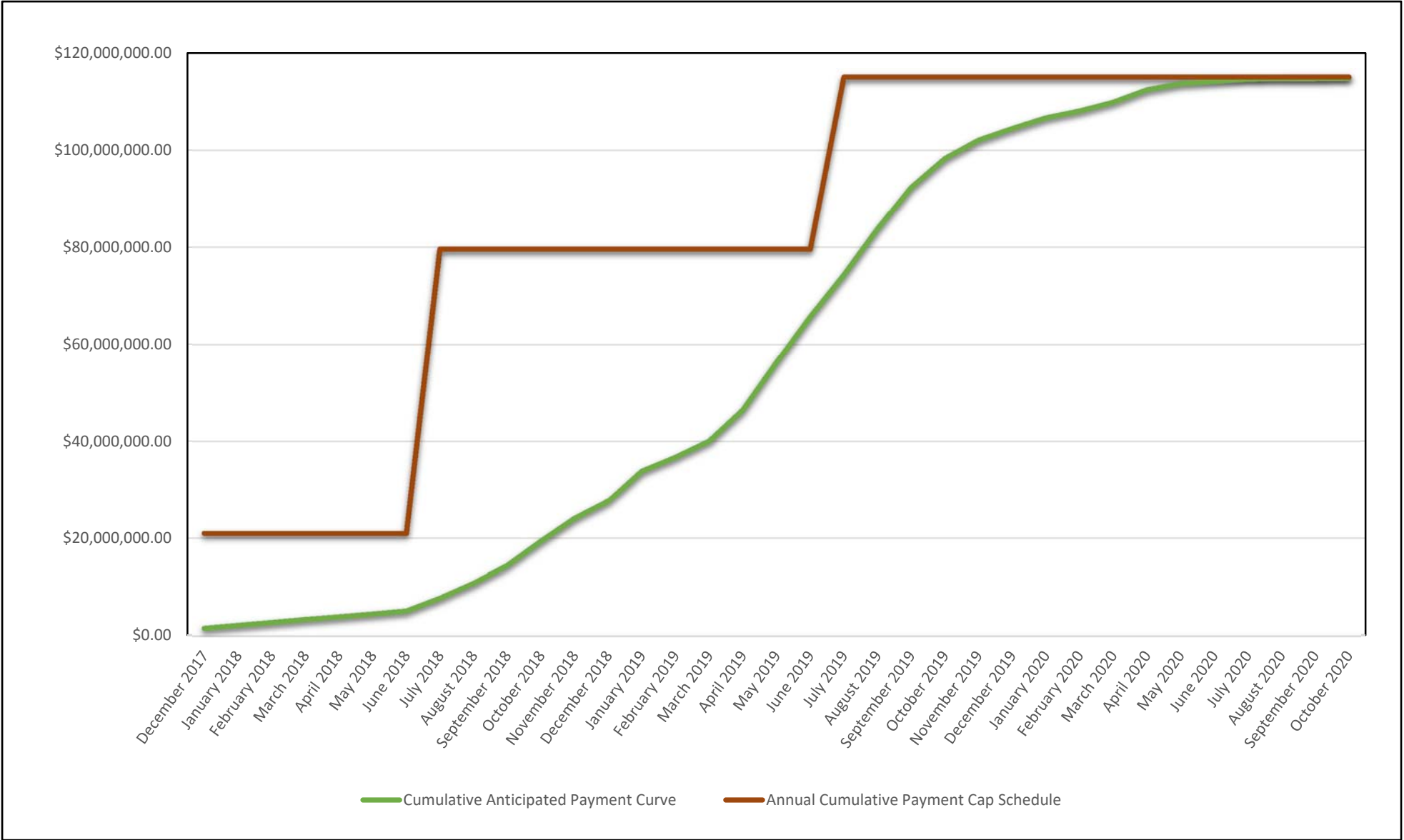
Data Date: Sep-15-2017

|   |  |   |  |   |
|---|--|---|--|---|
|  Primary Baseline<br> Actual Work<br> Remaining Work |  Critical Remaining Work<br> Baseline Milestone<br> Milestone |  Summary | <p align="center"><b>I-85 Widening, Design-Build</b><br/> <b>PI No. 110610, Gwinnett &amp; Barrow Counties</b></p> | <p align="right">Data Date: Sep-15-2017</p> |
|---|--|---|--|---|





C.W. Matthews Contracting Co., Inc.  
PI 110610 – I-85 Widening Design Build  
Maximum Payment Curve  
Submitted: August 25, 2018



**C.W. Matthews Contracting Co., Inc.**  
**PI 110610 - I-85 Widening Design-Build**  
**Maximum Payment Curve Table**  
**Submitted: August 25, 2017**



| Month     | Year | Anticipated Payment | Anticipated Cumulative Payment | Anticipated Cumulative Available Funds Against Cap | Annual Cumulative Payment Cap Schedule |
|-----------|------|---------------------|--------------------------------|--|--|
| July      | 2017 | \$ -                | \$ -                           | \$ 21,000,000.00                                   | \$ 21,000,000.00                       |
| December  | 2017 | \$ 1,597,542.77     | \$ 1,597,542.77                | \$ 19,402,457.23                                   | \$ 21,000,000.00                       |
| January   | 2018 | \$ 610,586.00       | \$ 2,208,128.77                | \$ 18,791,871.23                                   | \$ 21,000,000.00                       |
| February  | 2018 | \$ 583,147.76       | \$ 2,791,276.53                | \$ 18,208,723.47                                   | \$ 21,000,000.00                       |
| March     | 2018 | \$ 610,961.89       | \$ 3,402,238.42                | \$ 17,597,761.58                                   | \$ 21,000,000.00                       |
| April     | 2018 | \$ 533,313.10       | \$ 3,935,551.52                | \$ 17,064,448.48                                   | \$ 21,000,000.00                       |
| May       | 2018 | \$ 606,351.08       | \$ 4,541,902.60                | \$ 16,458,097.40                                   | \$ 21,000,000.00                       |
| June      | 2018 | \$ 608,385.43       | \$ 5,150,288.03                | \$ 15,849,711.97                                   | \$ 21,000,000.00                       |
| July      | 2018 | \$ 2,598,429.79     | \$ 7,748,717.82                | \$ 71,811,282.18                                   | \$ 79,560,000.00                       |
| August    | 2018 | \$ 3,075,484.13     | \$ 10,824,201.95               | \$ 68,735,798.05                                   | \$ 79,560,000.00                       |
| September | 2018 | \$ 3,625,789.53     | \$ 14,449,991.48               | \$ 65,110,008.52                                   | \$ 79,560,000.00                       |
| October   | 2018 | \$ 4,959,029.91     | \$ 19,409,021.39               | \$ 60,150,978.61                                   | \$ 79,560,000.00                       |
| November  | 2018 | \$ 4,706,631.01     | \$ 24,115,652.40               | \$ 55,444,347.60                                   | \$ 79,560,000.00                       |
| December  | 2018 | \$ 3,517,866.60     | \$ 27,633,519.00               | \$ 51,926,481.00                                   | \$ 79,560,000.00                       |
| January   | 2019 | \$ 6,259,927.97     | \$ 33,893,446.97               | \$ 45,666,553.03                                   | \$ 79,560,000.00                       |
| February  | 2019 | \$ 2,846,403.64     | \$ 36,739,850.61               | \$ 42,820,149.39                                   | \$ 79,560,000.00                       |
| March     | 2019 | \$ 3,328,695.66     | \$ 40,068,546.27               | \$ 39,491,453.73                                   | \$ 79,560,000.00                       |
| April     | 2019 | \$ 6,383,129.78     | \$ 46,451,676.05               | \$ 33,108,323.95                                   | \$ 79,560,000.00                       |
| May       | 2019 | \$ 9,781,924.72     | \$ 56,233,600.77               | \$ 23,326,399.23                                   | \$ 79,560,000.00                       |
| June      | 2019 | \$ 9,427,323.05     | \$ 65,660,923.82               | \$ 13,899,076.18                                   | \$ 79,560,000.00                       |
| July      | 2019 | \$ 8,604,117.74     | \$ 74,265,041.56               | \$ 40,734,958.44                                   | \$ 115,000,000.00                      |
| August    | 2019 | \$ 9,485,197.73     | \$ 83,750,239.29               | \$ 31,249,760.71                                   | \$ 115,000,000.00                      |
| September | 2019 | \$ 8,596,712.05     | \$ 92,346,951.34               | \$ 22,653,048.66                                   | \$ 115,000,000.00                      |
| October   | 2019 | \$ 5,948,060.82     | \$ 98,295,012.16               | \$ 16,704,987.84                                   | \$ 115,000,000.00                      |
| November  | 2019 | \$ 3,760,749.15     | \$ 102,055,761.31              | \$ 12,944,238.69                                   | \$ 115,000,000.00                      |
| December  | 2019 | \$ 2,388,347.97     | \$ 104,444,109.28              | \$ 10,555,890.72                                   | \$ 115,000,000.00                      |
| January   | 2020 | \$ 2,199,436.57     | \$ 106,643,545.85              | \$ 8,356,454.15                                    | \$ 115,000,000.00                      |
| February  | 2020 | \$ 1,395,744.08     | \$ 108,039,289.93              | \$ 6,960,710.07                                    | \$ 115,000,000.00                      |
| March     | 2020 | \$ 1,801,778.43     | \$ 109,841,068.36              | \$ 5,158,931.64                                    | \$ 115,000,000.00                      |
| April     | 2020 | \$ 2,556,667.32     | \$ 112,397,735.68              | \$ 2,602,264.32                                    | \$ 115,000,000.00                      |
| May       | 2020 | \$ 1,270,508.55     | \$ 113,668,244.23              | \$ 1,331,755.77                                    | \$ 115,000,000.00                      |
| June      | 2020 | \$ 440,382.17       | \$ 114,108,626.40              | \$ 891,373.60                                      | \$ 115,000,000.00                      |
| July      | 2020 | \$ 500,224.21       | \$ 114,608,850.61              | \$ 391,149.39                                      | \$ 115,000,000.00                      |
| August    | 2020 | \$ 91,616.57        | \$ 114,700,467.18              | \$ 299,532.82                                      | \$ 115,000,000.00                      |
| September | 2020 | \$ 15,519.21        | \$ 114,715,986.39              | \$ 284,013.61                                      | \$ 115,000,000.00                      |
| October   | 2020 | \$ 59,859.80        | \$ 114,775,846.19              | \$ 224,153.81                                      | \$ 115,000,000.00                      |

## Proposal Schedule Cost Loaded

| Activity ID   | Activity Name | Original Duration | Start | Finish | Total Float | Budgeted Expense Cost | 2018   |   |   |  | 2019             |  |    |    | 2020 |    |    |    | 2021 |    |    |    |    |    |    |  |  |
|---|---------------|-------------------|-------|--------|-------------|-----------------------|--|---|---|--|------------------|--|----|----|------|----|----|----|------|----|----|----|----|----|----|--|--|
| I-85 Widening Proposal Schedule - Segments 1-18 with Cost |               |                   |       |        |             |                       | 689.00d  | Sep-15-2017   | Oct-12-2020   | 0.00d  | \$114,775,846.19 | Q3   | Q4 | Q1 | Q2   | Q3 | Q4 | Q1 | Q2   | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |  |  |
| Project Management  |               |                   |       |        |             |                       | 1124.00d <td>Sep-15-2017<td>Oct-12-2020<td>0.00d<td>\$1,120,636.10</td><td colspan="16"><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div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C. W. Matthews  
Contracting Co., Inc.

## Proposal Schedule Cost Loaded

Submitted: August 25, 2017  
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| Activity ID                               | Activity Name   | Original Duration | Start       | Finish      | Total Float | Budgeted Expense Cost |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|---|---|-------------------|-------------|-------------|-------------|-----------------------|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|----|----|
|   |   |                   |             |             |             |                       | 2018 |    |    |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |    |    |    |    |
|   |   |                   |             |             |             |                       | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3 | Q4 |
| A16920                                    | GDOT - DB Team Communication Plan - GDOT Review/Comment               | 30.00d            | Jan-13-2018 | Feb-11-2018 | 122.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A16930                                    | GDOT - DB Team Communication Plan - Address GDOT Comments             | 7.00d             | Feb-12-2018 | Feb-18-2018 | 122.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A16940                                    | GDOT - DB Team Communication Plan - GDOT Review/Acceptance            | 14.00d            | Feb-19-2018 | Mar-04-2018 | 122.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Construction Phasing Plan                 |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A16950                                    | Prepare/Submit Construction Phasing Plan                              | 30.00d            | Dec-14-2017 | Jan-12-2018 | 4.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A16960                                    | Construction Phasing Plan - GDOT Review/Comment                       | 30.00d            | Jan-13-2018 | Feb-11-2018 | 4.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A16970                                    | Construction Phasing Plan - Address GDOT Comments                     | 7.00d             | Feb-12-2018 | Feb-18-2018 | 4.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A16980                                    | Construction Phasing Plan - GDOT Review/Acceptance                    | 14.00d            | Feb-19-2018 | Mar-04-2018 | 4.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Construction Maintenance Limits Plan      |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A16990                                    | Prepare/Submit Construction Maintenance Limits Plan                   | 150.00d           | Dec-14-2017 | May-12-2018 | 2.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17000                                    | Construction Maintenance Limits Plan - GDOT Review/Comment            | 30.00d            | May-13-2018 | Jun-11-2018 | 2.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17010                                    | Construction Maintenance Limits Plan - Address GDOT Comments          | 7.00d             | Jun-12-2018 | Jun-18-2018 | 2.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17020                                    | Construction Maintenance Limits Plan - GDOT Review/Acceptance         | 14.00d            | Jun-19-2018 | Jul-02-2018 | 2.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| ITS Maintenance & Repair Plan             |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17030                                    | Prepare/Submit ITS Maintenance & Repair Plan                          | 30.00d            | Dec-14-2017 | Jan-12-2018 | 119.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17040                                    | ITS Maintenance & Repair Plan - GDOT Review/Comment                   | 30.00d            | Jan-13-2018 | Feb-11-2018 | 119.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17050                                    | ITS Maintenance & Repair Plan - Address GDOT Comments                 | 10.00d            | Feb-12-2018 | Feb-21-2018 | 119.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17060                                    | ITS Maintenance & Repair Plan - GDOT Review/Acceptance                | 14.00d            | Feb-22-2018 | Mar-07-2018 | 119.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| ITS Responsive and Diagnostic Repair Plan |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17070                                    | Prepare/Submit ITS Responsive and Diagnostic Repair Plan              | 30.00d            | Dec-14-2017 | Jan-12-2018 | 119.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17080                                    | ITS Responsive and Diagnostic Repair Plan - GDOT Review/Comment       | 30.00d            | Jan-13-2018 | Feb-11-2018 | 119.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17090                                    | ITS Responsive and Diagnostic Repair Plan - Address GDOT Comments     | 10.00d            | Feb-12-2018 | Feb-21-2018 | 119.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17100                                    | ITS Responsive and Diagnostic Repair Plan - GDOT Review/Acceptance    | 14.00d            | Feb-22-2018 | Mar-07-2018 | 119.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| ITS Fiber Duct Validation Report          |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17110                                    | Prepare/Submit ITS Fiber Duct Validation Report                       | 90.00d            | Dec-14-2017 | Mar-13-2018 | 113.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| ITS Installation & Integration Plan       |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17150                                    | Prepare/Submit ITS Installation & Integration Plan                    | 120.00d           | Dec-14-2017 | Apr-12-2018 | 41.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17160                                    | ITS Installation & Integration Plan - GDOT Review/Comment             | 90.00d            | Apr-13-2018 | Jul-11-2018 | 41.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17170                                    | ITS Installation & Integration Plan - Address GDOT Comments           | 20.00d            | Jul-12-2018 | Jul-31-2018 | 41.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17180                                    | ITS Installation & Integration Plan - GDOT Review/Acceptance          | 14.00d            | Aug-01-2018 | Aug-14-2018 | 41.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Permanent Signing Unwelling Plan          |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17190                                    | Prepare/Submit Preliminary Permanent Signing Unwelling Plan           | 30.00d            | May-20-2018 | Jun-18-2018 | 373.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17200                                    | Preliminary Permanent Signing Unwelling Plan - GDOT Review/Comment    | 21.00d            | Jun-19-2018 | Jul-09-2018 | 373.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17210                                    | Preliminary Permanent Signing Unwelling Plan - Address GDOT Comments  | 7.00d             | Jul-10-2018 | Jul-16-2018 | 373.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17220                                    | Preliminary Permanent Signing Unwelling Plan - GDOT Review/Acceptance | 14.00d            | Jul-17-2018 | Jul-30-2018 | 373.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17310                                    | Prepare/Submit Permanent Signing Unwelling Plan                       | 30.00d            | Jul-31-2018 | Aug-29-2018 | 373.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17320                                    | Permanent Signing Unwelling Plan - GDOT Review/Comment                | 14.00d            | Aug-30-2018 | Sep-12-2018 | 373.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17330                                    | Permanent Signing Unwelling Plan - Address GDOT Comments              | 7.00d             | Sep-13-2018 | Sep-19-2018 | 373.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17340                                    | Permanent Signing Unwelling Plan - GDOT Review/Acceptance             | 14.00d            | Sep-20-2018 | Oct-03-2018 | 373.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Vibration Control Plan                    |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17230                                    | Prepare/Submit Vibration Control Plan                                 | 30.00d            | Dec-14-2017 | Jan-12-2018 | 217.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17240                                    | Vibration Control Plan - GDOT Review/Comment                          | 14.00d            | Jan-13-2018 | Jan-26-2018 | 217.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17250                                    | Vibration Control Plan - Address GDOT Comments                        | 10.00d            | Jan-27-2018 | Feb-05-2018 | 217.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17260                                    | Vibration Control Plan - GDOT Review/Acceptance                       | 14.00d            | Feb-06-2018 | Feb-19-2018 | 217.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Utility Emergency Response Plan           |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17270                                    | Prepare/Submit Utility Emergency Response Plan                        | 95.00d            | Dec-14-2017 | Mar-18-2018 | 108.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17280                                    | Utility Emergency Response Plan - GDOT Review/Comment                 | 60.00d            | Dec-14-2017 | Feb-11-2018 | 108.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17290                                    | Utility Emergency Response Plan - Address GDOT Comments               | 14.00d            | Feb-12-2018 | Feb-25-2018 | 108.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17290                                    | Utility Emergency Response Plan - Address GDOT Comments               | 7.00d             | Feb-26-2018 | Mar-04-2018 | 108.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17300                                    | Utility Emergency Response Plan - GDOT Review/Acceptance              | 14.00d            | Mar-05-2018 | Mar-18-2018 | 108.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Schedule                                  |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15530                                    | Prepare/Submit Preliminary Baseline Schedule                          | 174.00d           | Dec-14-2017 | Jun-05-2018 | 0.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15540                                    | Preliminary Baseline Schedule - GDOT Review/Comment                   | 84.00d            | Dec-14-2017 | Mar-07-2018 | 76.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15550                                    | Preliminary Baseline Schedule - Address GDOT Comments                 | 30.00d            | Dec-14-2017 | Jan-12-2018 | 0.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15560                                    | Preliminary Baseline Schedule - GDOT Review/Acceptance                | 30.00d            | Jan-13-2018 | Feb-11-2018 | 76.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15550                                    | Preliminary Baseline Schedule - Address GDOT Comments                 | 10.00d            | Feb-12-2018 | Feb-21-2018 | 76.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15560                                    | Preliminary Baseline Schedule - GDOT Review/Acceptance                | 14.00d            | Feb-22-2018 | Mar-07-2018 | 76.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |

Primary Baseline  
Actual Work  
Remaining Work

Critical Remaining Work  
Baseline Milestone  
Milestone

I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow  
Counties

Data Date: Sep-15-2017



C. W. Matthews  
Contracting Co., Inc.

## Proposal Schedule Cost Loaded

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| Activity ID      | Activity Name  | Original Duration | Start       | Finish      | Total Float | Budgeted Expense Cost |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|------------------|--|-------------------|-------------|-------------|-------------|-----------------------|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|----|----|
|                  |  |                   |             |             |             |                       | 2018 |    |    |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |    |    |    |    |
|                  |  |                   |             |             |             |                       | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3 | Q4 |
|                  | Baseline Schedule  | 144.00d           | Jan-13-2018 | Jun-05-2018 | 0.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15570           | Prepare/Submit Baseline Schedule   | 90.00d            | Jan-13-2018 | Apr-12-2018 | 0.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15580           | Baseline Schedule - GDOT Review/Comment  | 30.00d            | Apr-13-2018 | May-12-2018 | 0.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15590           | Baseline Schedule -Address GDOT Comments   | 10.00d            | May-13-2018 | May-22-2018 | 0.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15600           | Baseline Schedule - GDOT Review/Acceptance   | 14.00d            | May-23-2018 | Jun-05-2018 | 0.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|                  | Submittal Schedule   | 84.00d            | Dec-14-2017 | Mar-07-2018 | 76.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15610           | Prepare/Submit Submittal Schedule  | 30.00d            | Dec-14-2017 | Jan-12-2018 | 76.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15620           | Submittal Schedule - GDOT Review/Comment   | 30.00d            | Jan-13-2018 | Feb-11-2018 | 76.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15630           | Submittal Schedule -Address GDOT Comments  | 10.00d            | Feb-12-2018 | Feb-21-2018 | 76.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15640           | Submittal Schedule - GDOT Review/Acceptance  | 14.00d            | Feb-22-2018 | Mar-07-2018 | 76.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Management Plans |  |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|                  | Safety   | 168.00d           | Dec-14-2017 | May-30-2018 | 35.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15650           | Prepare/Submit Safety Plan   | 84.00d            | Dec-14-2017 | Mar-07-2018 | 119.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15660           | Safety Plan - GDOT Review/Comment  | 30.00d            | Dec-14-2017 | Jan-12-2018 | 119.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15670           | Safety Plan -Address GDOT Comments   | 10.00d            | Feb-12-2018 | Feb-21-2018 | 119.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15680           | Safety Plan - GDOT Review/Acceptance   | 14.00d            | Feb-22-2018 | Mar-07-2018 | 119.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|                  | Project Management   | 114.00d           | Dec-14-2017 | Apr-06-2018 | 89.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15690           | Prepare/Submit Project Management Plan   | 30.00d            | Dec-14-2017 | Jan-12-2018 | 89.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15700           | Project Management Plan - GDOT Review/Comment                                      | 60.00d            | Jan-13-2018 | Mar-13-2018 | 89.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15710           | Project Management Plan -Address GDOT Comments                                     | 10.00d            | Mar-14-2018 | Mar-23-2018 | 89.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15720           | Project Management Plan - GDOT Review/Acceptance                                   | 14.00d            | Mar-24-2018 | Apr-06-2018 | 89.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|                  | Quality Management   | 168.00d           | Dec-14-2017 | May-30-2018 | 35.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15730           | Prepare/Submit Quality Management Plan   | 30.00d            | Dec-14-2017 | Jan-12-2018 | 35.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15740           | Quality Management Plan - GDOT Review/Comment                                      | 30.00d            | Jan-13-2018 | Feb-11-2018 | 35.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15750           | Quality Management Plan -Address GDOT Comments                                     | 10.00d            | Feb-12-2018 | Feb-21-2018 | 35.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15760           | Quality Management Plan - GDOT Review/Acceptance                                   | 14.00d            | Feb-22-2018 | Mar-07-2018 | 35.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|                  | Design Quality   | 84.00d            | Dec-14-2017 | Mar-07-2018 | 1.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15770           | Prepare/Submit Design Quality Management Plan                                      | 30.00d            | Dec-14-2017 | Jan-12-2018 | 1.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15780           | Design Quality Management Plan - GDOT Review/Comment                               | 30.00d            | Jan-13-2018 | Feb-11-2018 | 1.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15790           | Design Quality Management Plan -Address GDOT Comments                              | 10.00d            | Feb-12-2018 | Feb-21-2018 | 1.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15800           | Design Quality Management Plan - GDOT Review/Acceptance                            | 14.00d            | Feb-22-2018 | Mar-07-2018 | 1.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|                  | Construction Quality   | 84.00d            | Mar-08-2018 | May-30-2018 | 35.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15810           | Prepare/Submit Construction Quality Management Plan                                | 30.00d            | Mar-08-2018 | Apr-06-2018 | 35.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15820           | Construction Quality Management Plan - GDOT Review/Comment                         | 30.00d            | Apr-07-2018 | May-06-2018 | 35.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15830           | Construction Quality Management Plan -Address GDOT Comments                        | 10.00d            | May-07-2018 | May-16-2018 | 35.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15840           | Construction Quality Management Plan - GDOT Review/Acceptance                      | 14.00d            | May-07-2018 | May-30-2018 | 35.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Shop Drawings    |  |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|                  | Structures   | 311.00d           | Apr-02-2018 | Feb-06-2019 | 446.00d     | \$46,720.61           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|                  | Beams  | 311.00d           | Apr-02-2018 | Feb-06-2019 | 446.00d     | \$36,987.15           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|                  | Spout Springs  | 311.00d           | Apr-02-2018 | Feb-06-2019 | 441.00d     | \$19,466.92           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|                  |  | 128.00d           | Aug-28-2018 | Jan-02-2019 | 104.00d     | \$4,866.73            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15850           | Supplier Prepare Beam Shop Drawings - Spout Springs                                | 20.00d            | Aug-28-2018 | Sep-16-2018 | 104.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15860           | Beam Shop Drawings - DB Team/EOR Review/Approve - Spout Springs                    | 10.00d            | Sep-17-2018 | Sep-26-2018 | 104.00d     | \$4,866.73            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15870           | Beam Shop Drawings - GDOT Review/Comment - Spout Springs                           | 14.00d            | Sep-27-2018 | Oct-10-2018 | 104.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15880           | Beam Shop Drawings - Supplier Address Comments/EOR Review/Approve - Spout Springs  | 10.00d            | Oct-11-2018 | Oct-20-2018 | 104.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15890           | Beam Shop Drawings - GDOT Review/Accept - Spout Springs                            | 14.00d            | Oct-21-2018 | Nov-03-2018 | 104.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A16600           | Fabricate and Deliver - Spout Springs Beams  | 60.00d            | Nov-04-2018 | Jan-02-2019 | 104.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|                  | Flowery Branch   | 128.00d           | Aug-02-2018 | Aug-07-2018 | 624.00d     | \$4,866.73            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15900           | Supplier Prepare Beam Shop Drawings - Flowery Branch                               | 20.00d            | Aug-02-2018 | Aug-21-2018 | 624.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15910           | Beam Shop Drawings - DB Team/EOR Review/Approve - Flowery Branch                   | 10.00d            | Apr-22-2018 | May-01-2018 | 624.00d     | \$4,866.73            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15920           | Beam Shop Drawings - GDOT Review/Comment - Flowery Branch                          | 14.00d            | May-02-2018 | May-15-2018 | 624.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15930           | Beam Shop Drawings - Supplier Address Comments/EOR Review/Approve - Flowery Branch | 10.00d            | May-16-2018 | May-25-2018 | 624.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15940           | Beam Shop Drawings - GDOT Review/Accept - Flowery Branch                           | 14.00d            | May-26-2018 | Jun-08-2018 | 624.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A16610           | Fabricate and Deliver - Flowery Branch Beams                                       | 60.00d            | Jun-09-2018 | Aug-07-2018 | 624.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|                  | Mulberry River   | 128.00d           | Oct-02-2018 | Feb-06-2019 | 7.00d       | \$4,866.73            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15950           | Supplier Prepare Beam Shop Drawings - Mulberry River                               | 20.00d            | Oct-02-2018 | Oct-21-2018 | 7.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |

Primary Baseline Critical Remaining Work  
Actual Work Baseline Milestone  
Remaining Work Milestone

## I-85 Widening, Design-Build PI No. 110610, Gwinnett & Barrow Counties

Data Date: Sep-15-2017



C. W. Matthews  
Contracting Co., Inc.

## Proposal Schedule Cost Loaded

Submitted: August 25, 2017  
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| Activity ID    | Activity Name   | Original Duration | Start       | Finish      | Total Float | Budgeted Expense Cost |      |    |    |    |      |    |    |    |      |    |    |    |      |    |   |  |
|----------------|---|-------------------|-------------|-------------|-------------|-----------------------|------|----|----|----|------|----|----|----|------|----|----|----|------|----|---|--|
|                |   |                   |             |             |             |                       | 2018 |    |    |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |   |  |
|                |   |                   |             |             |             |                       | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 |   |  |
| A15960         | Beam Shop Drawings - DB Team/EOR Review/Approve - Mulberry River                            | 10.00d            | Oct-22-2018 | Oct-31-2018 | 7.00d       | \$4,866.73            |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Beam Shop Drawings - DB Team/EOR Review/Approve - Mulberry River                            |  |
| A15970         | Beam Shop Drawings - GDOT Review/Comment - Mulberry River                                   | 14.00d            | Nov-01-2018 | Nov-14-2018 | 7.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Beam Shop Drawings - GDOT Review/Comment - Mulberry River                                   |  |
| A15980         | Beam Shop Drawings - Supplier Address Comments/EOR Review/Approve - Mulberry River          | 10.00d            | Nov-15-2018 | Nov-24-2018 | 7.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Beam Shop Drawings - Supplier Address Comments/EOR Review/Approve - Mulberry River          |  |
| A15990         | Beam Shop Drawings - GDOT Review/Comment - Mulberry River                                   | 14.00d            | Nov-25-2018 | Dec-08-2018 | 7.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Beam Shop Drawings - GDOT Review/Comment - Mulberry River                                   |  |
| A16620         | Fabricate and Deliver - Mulberry River Beams  | 60.00d            | Dec-09-2018 | Feb-06-2019 | 7.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Fabricate and Deliver - Mulberry River Beams  |  |
| Jesse Cronin   |   | 128.00d           | Sep-27-2018 | Feb-01-2019 | 289.00d     | \$4,866.73            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |   |  |
| A16000         | Supplier Prepare Beam Shop Drawings - Jesse Cronin  | 20.00d            | Sep-27-2018 | Oct-16-2018 | 289.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Supplier Prepare Beam Shop Drawings - Jesse Cronin  |  |
| A16010         | Beam Shop Drawings - DB Team/EOR Review/Approve - Jesse Cronin                              | 10.00d            | Oct-17-2018 | Oct-26-2018 | 289.00d     | \$4,866.73            |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Beam Shop Drawings - DB Team/EOR Review/Approve - Jesse Cronin                              |  |
| A16020         | Beam Shop Drawings - GDOT Review/Comment - Jesse Cronin                                     | 14.00d            | Oct-27-2018 | Nov-09-2018 | 289.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Beam Shop Drawings - GDOT Review/Comment - Jesse Cronin                                     |  |
| A16030         | Beam Shop Drawings - Supplier Address Comments/EOR Review/Approve - Jesse Cronin            | 10.00d            | Nov-10-2018 | Nov-19-2018 | 289.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Beam Shop Drawings - Supplier Address Comments/EOR Review/Approve - Jesse Cronin            |  |
| A16040         | Beam Shop Drawings - GDOT Review/Comment - Jesse Cronin                                     | 14.00d            | Nov-20-2018 | Dec-03-2018 | 289.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Beam Shop Drawings - GDOT Review/Comment - Jesse Cronin                                     |  |
| A16630         | Fabricate and Deliver - Jesse Cronin Beams  | 60.00d            | Dec-04-2018 | Feb-01-2019 | 289.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Fabricate and Deliver - Jesse Cronin Beams  |  |
| Metal Decking  |   | 311.00d           | Apr-02-2018 | Feb-06-2019 | 446.00d     | \$7,786.77            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |   |  |
| Spout Springs  |   | 128.00d           | Aug-28-2018 | Jan-02-2019 | 107.00d     | \$1,946.69            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |   |  |
| A16050         | Supplier Prepare Metal Decking Shop Drawings - Spout Springs                                | 20.00d            | Aug-28-2018 | Sep-16-2018 | 107.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Supplier Prepare Metal Decking Shop Drawings - Spout Springs                                |  |
| A16060         | Metal Decking Shop Drawings - DB Team/EOR Review/Approve - Spout Springs                    | 10.00d            | Sep-17-2018 | Sep-26-2018 | 107.00d     | \$1,946.69            |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Metal Decking Shop Drawings - DB Team/EOR Review/Approve - Spout Springs                    |  |
| A16070         | Metal Decking Shop Drawings - GDOT Review/Comment - Spout Springs                           | 14.00d            | Sep-27-2018 | Oct-10-2018 | 107.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Metal Decking Shop Drawings - GDOT Review/Comment - Spout Springs                           |  |
| A16080         | Metal Decking Shop Drawings - Supplier Address Comments/EOR Review/Approve - Spout Springs  | 10.00d            | Oct-11-2018 | Oct-20-2018 | 107.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Metal Decking Shop Drawings - Supplier Address Comments/EOR Review/Approve - Spout Springs  |  |
| A16090         | Metal Decking Shop Drawings - GDOT Review/Comment - Spout Springs                           | 14.00d            | Oct-21-2018 | Nov-03-2018 | 107.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Metal Decking Shop Drawings - GDOT Review/Comment - Spout Springs                           |  |
| A16640         | Fabricate and Deliver - Spout Springs Metal Decking   | 60.00d            | Nov-04-2018 | Jan-02-2019 | 107.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Fabricate and Deliver - Spout Springs Metal Decking   |  |
| Flowery Branch |   | 128.00d           | Apr-02-2018 | Aug-07-2018 | 629.00d     | \$1,946.69            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |   |  |
| A16250         | Supplier Prepare Metal Decking Shop Drawings - Flowery Branch                               | 20.00d            | Apr-02-2018 | Apr-21-2018 | 629.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Supplier Prepare Metal Decking Shop Drawings - Flowery Branch                               |  |
| A16260         | Metal Decking Shop Drawings - DB Team/EOR Review/Approve - Flowery Branch                   | 10.00d            | Apr-22-2018 | May-01-2018 | 629.00d     | \$1,946.69            |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Metal Decking Shop Drawings - DB Team/EOR Review/Approve - Flowery Branch                   |  |
| A16270         | Metal Decking Shop Drawings - GDOT Review/Comment - Flowery Branch                          | 14.00d            | May-02-2018 | May-15-2018 | 629.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Metal Decking Shop Drawings - GDOT Review/Comment - Flowery Branch                          |  |
| A16280         | Metal Decking Shop Drawings - Supplier Address Comments/EOR Review/Approve - Flowery Branch | 10.00d            | May-16-2018 | May-25-2018 | 629.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Metal Decking Shop Drawings - Supplier Address Comments/EOR Review/Approve - Flowery Branch |  |
| A16290         | Metal Decking Shop Drawings - GDOT Review/Comment - Flowery Branch                          | 14.00d            | May-26-2018 | Jun-08-2018 | 629.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Metal Decking Shop Drawings - GDOT Review/Comment - Flowery Branch                          |  |
| A16650         | Fabricate and Deliver - Flowery Branch Metal Decking  | 60.00d            | Jun-09-2018 | Aug-07-2018 | 629.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Fabricate and Deliver - Flowery Branch Metal Decking  |  |
| Mulberry River |   | 128.00d           | Oct-02-2018 | Feb-06-2019 | 15.00d      | \$1,946.69            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |   |  |
| A16300         | Supplier Prepare Metal Decking Shop Drawings - Mulberry River                               | 20.00d            | Oct-02-2018 | Oct-21-2018 | 15.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Supplier Prepare Metal Decking Shop Drawings - Mulberry River                               |  |
| A16310         | Metal Decking Shop Drawings - DB Team/EOR Review/Approve - Mulberry River                   | 10.00d            | Oct-22-2018 | Oct-31-2018 | 15.00d      | \$1,946.69            |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Metal Decking Shop Drawings - DB Team/EOR Review/Approve - Mulberry River                   |  |
| A16320         | Metal Decking Shop Drawings - GDOT Review/Comment - Mulberry River                          | 14.00d            | Nov-01-2018 | Nov-14-2018 | 15.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Metal Decking Shop Drawings - GDOT Review/Comment - Mulberry River                          |  |
| A16330         | Metal Decking Shop Drawings - Supplier Address Comments/EOR Review/Approve - Mulberry River | 10.00d            | Nov-15-2018 | Nov-24-2018 | 15.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Metal Decking Shop Drawings - Supplier Address Comments/EOR Review/Approve - Mulberry River |  |
| A16340         | Metal Decking Shop Drawings - GDOT Review/Comment - Mulberry River                          | 14.00d            | Nov-25-2018 | Dec-08-2018 | 15.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Metal Decking Shop Drawings - GDOT Review/Comment - Mulberry River                          |  |
| A16660         | Fabricate and Deliver - Mulberry River Metal Decking  | 60.00d            | Dec-09-2018 | Feb-06-2019 | 15.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Fabricate and Deliver - Mulberry River Metal Decking  |  |
| Jesse Cronin   |   | 128.00d           | Sep-27-2018 | Feb-01-2019 | 296.00d     | \$1,946.69            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |   |  |
| A16150         | Supplier Prepare Metal Decking Shop Drawings - Jesse Cronin                                 | 20.00d            | Sep-27-2018 | Oct-16-2018 | 296.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Supplier Prepare Metal Decking Shop Drawings - Jesse Cronin                                 |  |
| A16160         | Metal Decking Shop Drawings - DB Team/EOR Review/Approve - Jesse Cronin                     | 10.00d            | Oct-17-2018 | Oct-26-2018 | 296.00d     | \$1,946.69            |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Metal Decking Shop Drawings - DB Team/EOR Review/Approve - Jesse Cronin                     |  |
| A16170         | Metal Decking Shop Drawings - GDOT Review/Comment - Jesse Cronin                            | 14.00d            | Oct-27-2018 | Nov-09-2018 | 296.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Metal Decking Shop Drawings - GDOT Review/Comment - Jesse Cronin                            |  |
| A16180         | Metal Decking Shop Drawings - Supplier Address Comments/EOR Review/Approve - Jesse Cronin   | 10.00d            | Nov-10-2018 | Nov-19-2018 | 296.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Metal Decking Shop Drawings - Supplier Address Comments/EOR Review/Approve - Jesse Cronin   |  |
| A16190         | Metal Decking Shop Drawings - GDOT Review/Comment - Jesse Cronin                            | 14.00d            | Nov-20-2018 | Dec-03-2018 | 296.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Metal Decking Shop Drawings - GDOT Review/Comment - Jesse Cronin                            |  |
| A16670         | Fabricate and Deliver - Jesse Cronin Metal Decking  | 60.00d            | Dec-04-2018 | Feb-01-2019 | 296.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Fabricate and Deliver - Jesse Cronin Metal Decking  |  |
| MSE Walls      |   | 163.00d           | Aug-28-2018 | Feb-06-2019 | 221.00d     | \$9,733.46            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |   |  |
| Spout Springs  |   | 128.00d           | Aug-28-2018 | Jan-02-2019 | 25.00d      | \$4,866.73            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |   |  |
| A16100         | Supplier Prepare MSE Wall Shop Drawings - Spout Springs                                     | 20.00d            | Aug-28-2018 | Sep-16-2018 | 25.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Supplier Prepare MSE Wall Shop Drawings - Spout Springs                                     |  |
| A16110         | MSE Wall Shop Drawings - DB Team/EOR Review/Approve - Spout Springs                         | 10.00d            | Sep-17-2018 | Sep-26-2018 | 25.00d      | \$4,866.73            |      |    |    |    |      |    |    |    |      |    |    |    |      |    | MSE Wall Shop Drawings - DB Team/EOR Review/Approve - Spout Springs                         |  |
| A16120         | MSE Wall Shop Drawings - GDOT Review/Comment - Spout Springs                                | 14.00d            | Sep-27-2018 | Oct-10-2018 | 25.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | MSE Wall Shop Drawings - GDOT Review/Comment - Spout Springs                                |  |
| A16130         | MSE Wall Shop Drawings - Supplier Address Comments/EOR Review/Approve - Spout Springs       | 10.00d            | Oct-11-2018 | Oct-20-2018 | 25.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | MSE Wall Shop Drawings - Supplier Address Comments/EOR Review/Approve - Spout Springs       |  |
| A16140         | MSE Wall Shop Drawings - GDOT Review/Comment - Spout Springs                                | 14.00d            | Oct-21-2018 | Nov-03-2018 | 25.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | MSE Wall Shop Drawings - GDOT Review/Comment - Spout Springs                                |  |
| A16680         | Fabricate and Deliver - Spout Springs MSE Wall Panels                                       | 60.00d            | Nov-04-2018 | Jan-02-2019 | 25.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Fabricate and Deliver - Spout Springs MSE Wall Panels                                       |  |
| Jesse Cronin   |   | 128.00d           | Oct-02-2018 | Feb-06-2019 | 221.00d     | \$4,866.73            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |   |  |
| A16200         | Supplier Prepare MSE Wall Shop Drawings - Jesse Cronin                                      | 20.00d            | Oct-02-2018 | Oct-21-2018 | 221.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Supplier Prepare MSE Wall Shop Drawings - Jesse Cronin                                      |  |
| A16210         | MSE Wall Shop Drawings - DB Team/EOR Review/Approve - Jesse Cronin                          | 10.00d            | Oct-22-2018 | Oct-31-2018 | 221.00d     | \$4,866.73            |      |    |    |    |      |    |    |    |      |    |    |    |      |    | MSE Wall Shop Drawings - DB Team/EOR Review/Approve - Jesse Cronin                          |  |
| A16220         | MSE Wall Shop Drawings - GDOT Review/Comment - Jesse Cronin                                 | 14.00d            | Nov-01-2018 | Nov-14-2018 | 221.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | MSE Wall Shop Drawings - GDOT Review/Comment - Jesse Cronin                                 |  |
| A16230         | MSE Wall Shop Drawings - Supplier Address Comments/EOR Review/Approve - Jesse Cronin        | 10.00d            | Nov-15-2018 | Nov-24-2018 | 221.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | MSE Wall Shop Drawings - Supplier Address Comments/EOR Review/Approve - Jesse Cronin        |  |
| A16240         | MSE Wall Shop Drawings - GDOT Review/Comment - Jesse Cronin                                 | 14.00d            | Nov-25-2018 | Dec-08-2018 | 221.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | MSE Wall Shop Drawings - GDOT Review/Comment - Jesse Cronin                                 |  |

Primary Baseline Critical Remaining Work  
Actual Work Baseline Milestone  
Remaining Work Milestone

I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow  
Counties

Data Date: Sep-15-2017



C. W. Matthews  
Contracting Co., Inc.

## Proposal Schedule Cost Loaded

Submitted: August 25, 2017  
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| Activity ID                   | Activity Name  | Original Duration | Start       | Finish      | Total Float | Budgeted Expense Cost | 2018 2019 2020 2021 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-------------------------------|--|-------------------|-------------|-------------|-------------|-----------------------|---------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|                               |  |                   |             |             |             |                       | Q3                  | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| A16690                        | Fabricate and Deliver - Jesse Cronin MSE Wall Panels                                       | 60.00d            | Dec-09-2018 | Feb-06-2019 | 221.00d     | \$0.00                |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Signs                         |  |                   |             |             |             |                       |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Group 1 Overhead Signs        |  |                   |             |             |             |                       |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A16350                        | Supplier Prepare Group 1 Overhead Signs Shop Drawings                                      | 45.00d            | May-20-2018 | Nov-28-2018 | 272.00d     | \$4,866.73            |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A16360                        | Group 1 Overhead Signs Shop Drawings - DB Team/EOR Review/Approve                          | 10.00d            | Jul-04-2018 | Jul-13-2018 | 272.00d     | \$4,866.73            |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A16370                        | Group 1 Overhead Signs Shop Drawings - GDOT Review/Comment                                 | 14.00d            | Jul-14-2018 | Jul-27-2018 | 272.00d     | \$0.00                |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A16380                        | Group 1 Overhead Signs Shop Drawings - Supplier Address Comments/EOR Review/Approve        | 20.00d            | Jul-28-2018 | Aug-16-2018 | 272.00d     | \$0.00                |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A16390                        | Group 1 Overhead Signs Shop Drawings - GDOT Review/Accept                                  | 14.00d            | Aug-17-2018 | Aug-30-2018 | 272.00d     | \$0.00                |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A16700                        | Fabricate and Deliver - Group 1 Overhead Sign Structures                                   | 90.00d            | Aug-31-2018 | Nov-28-2018 | 272.00d     | \$0.00                |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Group 2 Overhead Signs        |  |                   |             |             |             |                       |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A16400                        | Supplier Prepare Group 2 Overhead Signs Shop Drawings                                      | 45.00d            | Jul-04-2018 | Aug-17-2018 | 254.00d     | \$0.00                |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A16410                        | Group 2 Overhead Signs Shop Drawings - DB Team/EOR Review/Approve                          | 10.00d            | Aug-27-2018 | Aug-27-2018 | 254.00d     | \$4,866.73            |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A16420                        | Group 2 Overhead Signs Shop Drawings - GDOT Review/Comment                                 | 14.00d            | Aug-28-2018 | Sep-10-2018 | 254.00d     | \$0.00                |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A16430                        | Group 2 Overhead Signs Shop Drawings - Supplier Address Comments/EOR Review/Approve        | 20.00d            | Sep-11-2018 | Sep-30-2018 | 254.00d     | \$0.00                |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A16440                        | Group 2 Overhead Signs Shop Drawings - GDOT Review/Accept                                  | 14.00d            | Oct-01-2018 | Oct-14-2018 | 254.00d     | \$0.00                |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A16710                        | Fabricate and Deliver - Group 2 Overhead Sign Structures                                   | 90.00d            | Oct-15-2018 | Jan-12-2019 | 254.00d     | \$0.00                |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Materials                     |  |                   |             |             |             |                       |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ITS Structures                |  |                   |             |             |             |                       |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A16450                        | Subcontractor Prepare ITS Structure Shop Drawings  | 20.00d            | Dec-25-2018 | May-01-2019 | 307.00d     | \$7,368.84            |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A16460                        | ITS Structure Shop Drawings - DB Team/EOR Review/Approve                                   | 10.00d            | Jan-14-2019 | Jan-23-2019 | 307.00d     | \$7,368.84            |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A16470                        | ITS Structure Shop Drawings - GDOT Review/Comment  | 14.00d            | Jan-24-2019 | Feb-06-2019 | 307.00d     | \$0.00                |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A16480                        | ITS Structure Shop Drawings - Subcontractor Address Comments/EOR Review/Approve            | 10.00d            | Feb-07-2019 | Feb-16-2019 | 307.00d     | \$0.00                |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A16490                        | ITS Structure Shop Drawings - GDOT Review/Accept   | 14.00d            | Feb-17-2019 | Mar-02-2019 | 307.00d     | \$0.00                |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A16720                        | Fabricate and Deliver - ITS Structures   | 60.00d            | Mar-03-2019 | May-01-2019 | 307.00d     | \$0.00                |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ITS Duct Bank Components      |  |                   |             |             |             |                       |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A16500                        | Subcontractor Prepare ITS Duct Bank Materials  | 20.00d            | Aug-19-2018 | Sep-07-2018 | 163.00d     | \$0.00                |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A16510                        | ITS Duct Bank Materials - DB Team/EOR Review/Approve                                       | 10.00d            | Sep-08-2018 | Sep-17-2018 | 163.00d     | \$7,368.84            |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A16520                        | ITS Duct Bank Materials - GDOT Review/Comment  | 14.00d            | Sep-18-2018 | Oct-01-2018 | 163.00d     | \$0.00                |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A16530                        | ITS Duct Bank Materials - Subcontractor Address Comments/EOR Review/Approve                | 10.00d            | Oct-02-2018 | Oct-11-2018 | 163.00d     | \$0.00                |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A16540                        | ITS Duct Bank Materials - GDOT Review/Accept   | 14.00d            | Oct-12-2018 | Oct-25-2018 | 163.00d     | \$0.00                |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A16730                        | Fabricate and Deliver - ITS Duct Bank Components   | 60.00d            | Oct-26-2018 | Dec-24-2018 | 163.00d     | \$0.00                |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ITS Equipment                 |  |                   |             |             |             |                       |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A16550                        | Subcontractor Prepare ITS Equipment Materials  | 20.00d            | May-02-2019 | May-21-2019 | 307.00d     | \$0.00                |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A16560                        | ITS Equipment Materials - DB Team/EOR Review/Approve                                       | 10.00d            | May-22-2019 | May-31-2019 | 307.00d     | \$7,368.84            |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A16570                        | ITS Equipment Materials - GDOT Review/Comment  | 14.00d            | Jun-01-2019 | Jun-14-2019 | 307.00d     | \$0.00                |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A16580                        | ITS Equipment Materials - Subcontractor Address Comments/EOR Review/Approve                | 10.00d            | Jun-15-2019 | Jun-24-2019 | 307.00d     | \$0.00                |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A16590                        | ITS Equipment Materials - GDOT Review/Accept   | 14.00d            | Jun-25-2019 | Jul-08-2019 | 307.00d     | \$0.00                |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A16740                        | Fabricate and Deliver - ITS Equipment  | 60.00d            | Jul-09-2019 | Sep-06-2019 | 307.00d     | \$0.00                |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Emergency Access Gate System  |  |                   |             |             |             |                       |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A17350                        | Supplier Prepare Emergency Access Gate System Technical Data                               | 20.00d            | Apr-19-2018 | May-08-2018 | 262.00d     | \$0.00                |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A17360                        | Emergency Access Gate System Technical Data - DB Team/EOR Review/Approve                   | 10.00d            | May-09-2018 | May-18-2018 | 262.00d     | \$7,368.84            |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A17370                        | Emergency Access Gate System Technical Data - GDOT Review/Comment                          | 14.00d            | May-19-2018 | Jun-01-2018 | 262.00d     | \$0.00                |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A17380                        | Emergency Access Gate System Technical Data - Supplier Address Comments/EOR Review/Approve | 10.00d            | Jun-02-2018 | Jun-11-2018 | 262.00d     | \$0.00                |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A17390                        | Emergency Access Gate System Technical Data - GDOT Review/Accept                           | 14.00d            | Jun-12-2018 | Jun-25-2018 | 262.00d     | \$0.00                |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A17400                        | Fabricate and Deliver - Emergency Access Gate System                                       | 60.00d            | Aug-24-2018 | Aug-24-2018 | 262.00d     | \$0.00                |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Project Completion Submittals |  |                   |             |             |             |                       |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| As-Built Plans                |  |                   |             |             |             |                       |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A15360                        | Prepare As-Built Plans - All Phases  | 30.00d            | Jul-15-2020 | Aug-13-2020 | 0.00d       | \$175,609.29          |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A15370                        | As-Built Plans - GDOT Review / Acceptance  | 14.00d            | Aug-14-2020 | Aug-27-2020 | 16.00d      | \$0.00                |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A15380                        | As-Built Plans - Utility Owner Review / Acceptance   | 30.00d            | Aug-14-2020 | Sep-12-2020 | 0.00d       | \$0.00                |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A15400                        | As-Built Plans - Address GDOT / Utility Owner Comments                                     | 15.00d            | Sep-13-2020 | Sep-27-2020 | 0.00d       | \$0.00                |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A15390                        | As-Built Plans - GDOT Acceptance   | 15.00d            | Sep-28-2020 | Oct-12-2020 | 0.00d       | \$0.00                |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Design Project Management     |  |                   |             |             |             |                       |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A18940                        | Design Project Management - December 2017  | 17.00d            | Dec-14-2017 | Dec-30-2017 | 1.00d       | \$599,730.80          |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A18950                        | Design Project Management - January 2018   | 31.00d            | Dec-31-2017 | Jan-30-2018 | 1.00d       | \$45,097.33           |                     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

Primary Baseline Critical Remaining Work  
Actual Work Baseline Milestone  
Remaining Work Milestone

## I-85 Widening, Design-Build PI No. 110610, Gwinnett & Barrow Counties

Data Date: Sep-15-2017



C. W. Matthews  
Contracting Co., Inc.

## Proposal Schedule Cost Loaded

Submitted: August 25, 2017  
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| Activity ID                             | Activity Name   | Original Duration | Start              | Finish             | Total Float    | Budgeted Expense Cost |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---|---|-------------------|--------------------|--------------------|----------------|-----------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|   |   |                   |                    |                    |                |                       | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| A18960                                  | Design Project Management - February 2018                           | 28.00d            | Jan-31-2018        | Feb-27-2018        | 1.00d          | \$40,733.07           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A18970                                  | Design Project Management - March 2018                              | 31.00d            | Feb-28-2018        | Mar-30-2018        | 1.00d          | \$45,097.33           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A18980                                  | Design Project Management - April 2018                              | 30.00d            | Mar-31-2018        | Apr-29-2018        | 1.00d          | \$43,612.57           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A18990                                  | Design Project Management - May 2018                                | 31.00d            | Apr-30-2018        | May-30-2018        | 1.00d          | \$45,097.33           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A19000                                  | Design Project Management - June 2018                               | 30.00d            | May-31-2018        | Jun-29-2018        | 1.00d          | \$43,642.57           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A19010                                  | Design Project Management - July 2018                               | 4.00d             | Jun-30-2018        | Jul-03-2018        | 1.00d          | \$5,819.84            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| <b>Design</b>                           |   | <b>465.00d</b>    | <b>Dec-14-2017</b> | <b>Mar-23-2019</b> | <b>186.00d</b> | <b>\$4,813,992.38</b> |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| <b>Entire Project</b>                   |   | <b>465.00d</b>    | <b>Dec-14-2017</b> | <b>Mar-23-2019</b> | <b>75.00d</b>  | <b>\$2,005,478.92</b> |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A18930                                  | Preliminary Design Services   | 10.00d            | Dec-14-2017        | Dec-23-2017        | 1.00d          | \$398,199.00          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| <b>Design Submittal Guide / Index</b>   |   | <b>35.00d</b>     | <b>Dec-14-2017</b> | <b>Jan-17-2018</b> | <b>6.00d</b>   | <b>\$51,840.00</b>    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12730                                  | Prepare Design Submittal Guide / Index                              | 7.00d             | Dec-14-2017        | Dec-20-2017        | 4.00d          | \$46,656.00           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12740                                  | Design Submittal Guide / Index - GDOT Review                        | 14.00d            | Dec-21-2017        | Jan-03-2018        | 6.00d          | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12750                                  | Design Submittal Guide / Index - Address GDOT Comments & Resubmit   | 7.00d             | Jan-04-2018        | Jan-10-2018        | 6.00d          | \$5,184.00            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12760                                  | Design Submittal Guide / Index - GDOT Approval                      | 7.00d             | Jan-11-2018        | Jan-17-2018        | 6.00d          | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| <b>Initial Project Design Data Book</b> |   | <b>81.00d</b>     | <b>Dec-14-2017</b> | <b>Mar-04-2018</b> | <b>4.00d</b>   | <b>\$20,133.21</b>    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A17450                                  | Prepare Initial Project Design Data Book                            | 30.00d            | Dec-14-2017        | Jan-12-2018        | 4.00d          | \$18,119.89           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A17460                                  | Initial Project Design Data Book - GDOT Review                      | 30.00d            | Jan-13-2018        | Feb-11-2018        | 4.00d          | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A17470                                  | Initial Project Design Data Book - Address GDOT Comments & Resubmit | 7.00d             | Feb-12-2018        | Feb-18-2018        | 4.00d          | \$2,013.32            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A17480                                  | Initial Project Design Data Book - GDOT Approval                    | 14.00d            | Feb-19-2018        | Mar-04-2018        | 4.00d          | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| <b>Environmental</b>                    |   | <b>444.00d</b>    | <b>Jan-04-2018</b> | <b>Mar-23-2019</b> | <b>75.00d</b>  | <b>\$243,817.42</b>   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| <b>Environmental Change Table</b>       |   | <b>91.00d</b>     | <b>Jan-04-2018</b> | <b>Apr-04-2018</b> | <b>62.00d</b>  | <b>\$51,350.68</b>    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| <b>#1 (Early Works Package)</b>         |   | <b>28.00d</b>     | <b>Jan-04-2018</b> | <b>Jan-31-2018</b> | <b>59.00d</b>  | <b>\$25,675.34</b>    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13080                                  | Prepare Environmental Change Table #1                               | 7.00d             | Jan-04-2018        | Jan-10-2018        | 59.00d         | \$23,685.31           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13090                                  | Environmental Change Table #1 - GDOT Review                         | 7.00d             | Jan-11-2018        | Jan-17-2018        | 59.00d         | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13100                                  | Environmental Change Table #1 - Address Comments                    | 7.00d             | Jan-18-2018        | Jan-24-2018        | 59.00d         | \$1,990.03            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13110                                  | Environmental Change Table #1 - GDOT Review / Approval              | 7.00d             | Jan-25-2018        | Jan-31-2018        | 59.00d         | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| <b>#2 (Remainder of Project)</b>        |   | <b>28.00d</b>     | <b>Mar-08-2018</b> | <b>Apr-04-2018</b> | <b>62.00d</b>  | <b>\$25,675.34</b>    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13150                                  | Prepare Environmental Change Table #2                               | 7.00d             | Mar-08-2018        | Mar-14-2018        | 62.00d         | \$23,685.31           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13160                                  | Environmental Change Table #2 - GDOT Review                         | 7.00d             | Mar-15-2018        | Mar-21-2018        | 62.00d         | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13170                                  | Environmental Change Table #2 - Address Comments                    | 7.00d             | Mar-22-2018        | Mar-28-2018        | 62.00d         | \$1,990.03            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13180                                  | Environmental Change Table #2 - GDOT Review / Approval              | 7.00d             | Mar-29-2018        | Apr-04-2018        | 62.00d         | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| <b>Special Studies</b>                  |   | <b>103.00d</b>    | <b>May-07-2018</b> | <b>Aug-17-2018</b> | <b>38.00d</b>  | <b>\$0.00</b>         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12610                                  | Prepare Ecology Addendum by GDOT                                    | 14.00d            | May-07-2018        | May-20-2018        | 38.00d         | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12620                                  | Ecology Addendum - GDOT Review                                      | 30.00d            | May-21-2018        | Jun-19-2018        | 38.00d         | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12630                                  | Ecology Addendum - GDOT Consultant Address GDOT Comments            | 7.00d             | Jun-20-2018        | Jun-26-2018        | 38.00d         | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12640                                  | Ecology Addendum - GDOT 2nd Review                                  | 14.00d            | Jun-27-2018        | Jul-10-2018        | 38.00d         | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13240                                  | Ecology Addendum - GDOT Consultant Address GDOT 2nd Comments        | 7.00d             | Jul-11-2018        | Jul-17-2018        | 38.00d         | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13250                                  | Ecology Addendum - GDOT Approval and Submit to FHWA                 | 1.00d             | Jul-18-2018        | Jul-18-2018        | 38.00d         | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13260                                  | Ecology Addendum Approval by FHWA                                   | 30.00d            | Jul-19-2018        | Aug-17-2018        | 38.00d         | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| <b>NEPA Re-evaluation</b>               |   | <b>416.00d</b>    | <b>Feb-01-2018</b> | <b>Mar-23-2019</b> | <b>27.00d</b>  | <b>\$0.00</b>         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| <b>#1 (Early Works Package)</b>         |   | <b>95.00d</b>     | <b>Feb-01-2018</b> | <b>May-06-2018</b> | <b>59.00d</b>  | <b>\$0.00</b>         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A1972                                   | Prepare CE Re-evaluation #1 by GDOT                                 | 14.00d            | Feb-01-2018        | Feb-14-2018        | 59.00d         | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13120                                  | CE Re-evaluation #1 - GDOT Review                                   | 30.00d            | Feb-15-2018        | Mar-16-2018        | 59.00d         | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13130                                  | CE Re-evaluation #1 - GDOT Consultant Address GDOT Comments         | 7.00d             | Mar-17-2018        | Mar-23-2018        | 59.00d         | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13140                                  | CE Re-evaluation #1 - GDOT Approval and Submit to FHWA              | 14.00d            | Mar-24-2018        | Apr-06-2018        | 59.00d         | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A1982                                   | CE Re-evaluation #1 Approval by FHWA                                | 30.00d            | Apr-07-2018        | May-06-2018        | 59.00d         | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| <b>#3 (Noise Walls)</b>                 |   | <b>111.00d</b>    | <b>Dec-03-2018</b> | <b>Mar-23-2019</b> | <b>27.00d</b>  | <b>\$0.00</b>         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13600                                  | Prepare CE Re-evaluation #3 by GDOT                                 | 30.00d            | Dec-03-2018        | Jan-01-2019        | 27.00d         | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13620                                  | CE Re-evaluation #3 - GDOT Review                                   | 30.00d            | Jan-02-2019        | Jan-31-2019        | 27.00d         | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13630                                  | CE Re-evaluation #3 - GDOT Consultant Address GDOT Comments         | 7.00d             | Feb-01-2019        | Feb-07-2019        | 27.00d         | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13640                                  | CE Re-evaluation #3 - GDOT Approval and Submit to FHWA              | 14.00d            | Feb-08-2019        | Feb-21-2019        | 27.00d         | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13610                                  | CE Re-evaluation #3 Approval by FHWA                                | 30.00d            | Feb-22-2019        | Mar-23-2019        | 27.00d         | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| <b>#2 (Remainder of Project)</b>        |   | <b>135.00d</b>    | <b>Apr-05-2018</b> | <b>Aug-17-2018</b> | <b>38.00d</b>  | <b>\$0.00</b>         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13190                                  | Prepare CE Re-evaluation #2 by GDOT                                 | 30.00d            | Apr-05-2018        | May-04-2018        | 62.00d         | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13210                                  | CE Re-evaluation #2 - GDOT Review                                   | 30.00d            | May-05-2018        | Jun-03-2018        | 62.00d         | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

■ Primary Baseline    ■ Critical Remaining Work  
■ Actual Work    ◆ Baseline Milestone  
■ Remaining Work    ◆ Milestone

**I-85 Widening, Design-Build**  
**PI No. 110610, Gwinnett & Barrow**  
**Counties**

Data Date: Sep-15-2017



C. W. Matthews  
Contracting Co., Inc.

## Proposal Schedule Cost Loaded

Submitted: August 25, 2017  
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| Activity ID                        | Activity Name  | Original Duration | Start       | Finish      | Total Float | Budgeted Expense Cost |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------------------------------------|--|-------------------|-------------|-------------|-------------|-----------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|                                    |  |                   |             |             |             |                       | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| A13220                             | CE Re-evaluation #2 - GDOT Consultant Address GDOT Comments              | 7.00d             | Jun-04-2018 | Jun-10-2018 | 62.00d      | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13230                             | CE Re-evaluation #2 - GDOT Approval and Submit to FHWA                   | 14.00d            | Jun-11-2018 | Jun-24-2018 | 62.00d      | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13200                             | CE Re-evaluation #2 Approval by FHWA                                     | 30.00d            | Jul-19-2018 | Aug-17-2018 | 38.00d      | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 404 Permit                         |  | 219.00d           | Apr-05-2018 | Nov-09-2018 | 209.00d     | \$99,501.71           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A11480                             | Prepare & Submit Nationwide Permit 23                                    | 14.00d            | Apr-05-2018 | Apr-18-2018 | 209.00d     | \$89,551.54           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13270                             | Nationwide Permit 23 - Review by GDOT                                    | 30.00d            | Apr-19-2018 | May-18-2018 | 209.00d     | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13280                             | Nationwide Permit 23 - Address GDOT Comments                             | 7.00d             | May-19-2018 | May-25-2018 | 209.00d     | \$4,975.09            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13290                             | Nationwide Permit 23 - 2nd Review by GDOT                                | 14.00d            | May-26-2018 | Jun-08-2018 | 209.00d     | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13300                             | Nationwide Permit 23 - Address GDOT 2nd Comments                         | 7.00d             | Jun-09-2018 | Jun-15-2018 | 209.00d     | \$4,975.09            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13310                             | Nationwide Permit 23 - GDOT Approve and Submit to USACE                  | 7.00d             | Jun-16-2018 | Jun-22-2018 | 209.00d     | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A11670                             | Nationwide Permit 23 Approval by USACE                                   | 140.00d           | Jun-23-2018 | Nov-09-2018 | 209.00d     | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Stream Buffer Variance             |  | 245.00d           | Jul-20-2018 | Mar-21-2019 | 77.00d      | \$59,701.03           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13320                             | Prepare & Submit Stream Buffer Variance Application                      | 30.00d            | Jul-20-2018 | Aug-18-2018 | 77.00d      | \$53,730.92           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13340                             | Stream Buffer Variance Application - Review by GDOT                      | 30.00d            | Aug-19-2018 | Sep-17-2018 | 77.00d      | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13350                             | Stream Buffer Variance Application - Address GDOT Comments               | 7.00d             | Sep-18-2018 | Sep-24-2018 | 77.00d      | \$2,985.05            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13360                             | Stream Buffer Variance Application - 2nd Review by GDOT                  | 14.00d            | Sep-25-2018 | Oct-08-2018 | 77.00d      | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13370                             | Stream Buffer Variance Application - Address GDOT 2nd Comments           | 7.00d             | Oct-09-2018 | Oct-15-2018 | 77.00d      | \$2,985.05            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13380                             | Stream Buffer Variance Application - GDOT Approve and Submit to GEPD     | 7.00d             | Oct-16-2018 | Oct-22-2018 | 77.00d      | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13330                             | Stream Buffer Variance Review & Issuance by GEPD                         | 150.00d           | Oct-23-2018 | Mar-21-2019 | 77.00d      | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Noise Study                        |  | 316.00d           | Feb-20-2018 | Jan-01-2019 | 108.00d     | \$33,264.00           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Noise Addendum                     |  | 119.00d           | Sep-05-2018 | Jan-01-2019 | 108.00d     | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13520                             | Prepare Noise Addendum by GDOT   | 30.00d            | Sep-05-2018 | Oct-04-2018 | 27.00d      | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13530                             | Noise Addendum - GDOT Review   | 30.00d            | Oct-05-2018 | Nov-03-2018 | 27.00d      | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13540                             | Noise Addendum - GDOT Consultant Address GDOT Comments                   | 7.00d             | Nov-04-2018 | Nov-10-2018 | 27.00d      | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13550                             | Noise Addendum - 2nd Review by GDOT                                      | 14.00d            | Nov-11-2018 | Nov-24-2018 | 27.00d      | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13560                             | Noise Addendum - GDOT Consultant Address GDOT 2nd Comments               | 7.00d             | Nov-25-2018 | Dec-01-2018 | 27.00d      | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13570                             | Noise Addendum - GDOT Approval & Submit to FHWA                          | 1.00d             | Dec-02-2018 | Dec-02-2018 | 27.00d      | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13580                             | Noise Addendum - FHWA Approval   | 30.00d            | Dec-03-2018 | Jan-01-2019 | 108.00d     | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Noise Wall Envelope & Sound Levels |  | 102.00d           | May-26-2018 | Sep-04-2018 | 27.00d      | \$1,663.20            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13450                             | Prepare Wall Envelope & Sound Levels by GDOT                             | 30.00d            | May-26-2018 | Jun-24-2018 | 27.00d      | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13460                             | Wall Envelope & Sound Levels - GDOT Review                               | 30.00d            | Jun-25-2018 | Jul-24-2018 | 27.00d      | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13470                             | Wall Envelope & Sound Levels - GDOT Consultant Address GDOT Comments     | 7.00d             | Jul-25-2018 | Jul-31-2018 | 27.00d      | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13480                             | Wall Envelope & Sound Levels - 2nd Review by GDOT                        | 14.00d            | Aug-01-2018 | Aug-14-2018 | 27.00d      | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13490                             | Wall Envelope & Sound Levels - GDOT Consultant Address GDOT 2nd Comments | 7.00d             | Aug-15-2018 | Aug-21-2018 | 27.00d      | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13500                             | Wall Envelope & Sound Levels - GDOT Approval & Submit to DB Team         | 7.00d             | Aug-22-2018 | Aug-28-2018 | 27.00d      | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13510                             | Wall Envelope & Sound Levels - Approval by DB Team                       | 7.00d             | Aug-29-2018 | Sep-04-2018 | 27.00d      | \$1,663.20            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Final Noise Modeling               |  | 95.00d            | Feb-20-2018 | May-25-2018 | 27.00d      | \$31,600.80           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13390                             | Prepare Final Noise Model  | 30.00d            | Feb-20-2018 | Mar-21-2018 | 27.00d      | \$28,274.40           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13400                             | Final Noise Model - GDOT Review  | 30.00d            | Mar-22-2018 | Apr-20-2018 | 27.00d      | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13410                             | Final Noise Model - Address GDOT Comments                                | 7.00d             | Apr-21-2018 | Apr-27-2018 | 27.00d      | \$1,663.20            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13420                             | Final Noise Model - 2nd Review by GDOT                                   | 14.00d            | Apr-28-2018 | May-11-2018 | 27.00d      | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13430                             | Final Noise Model - Address GDOT 2nd Comments                            | 7.00d             | May-12-2018 | May-18-2018 | 27.00d      | \$1,663.20            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13440                             | Final Noise Model - GDOT Approval  | 7.00d             | May-19-2018 | May-25-2018 | 27.00d      | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Utility Coordination               |  | 279.00d           | Dec-14-2017 | Sep-18-2018 | 6.00d       | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A13810                             | Prepare/Submit Supplemental Verification of SUE Investigations - QL-B    | 45.00d            | Dec-14-2017 | Jan-27-2018 | 11.00d      | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A11830                             | SUE Utility Impact Analysis  | 30.00d            | Dec-14-2017 | Jan-12-2018 | 6.00d       | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A8280                              | SUE Investigations - QL-A  | 20.00d            | Jan-13-2018 | Feb-01-2018 | 6.00d       | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A11890                             | Overhead/SUE Info to Utilities - URPN Letter 1a                          | 10.00d            | Feb-02-2018 | Feb-11-2018 | 6.00d       | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A11910                             | Overhead/SUE Info to Utilities - URPN Letter 1a - Utility Company Review | 30.00d            | Feb-12-2018 | Mar-13-2018 | 6.00d       | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A11900                             | Overhead/SUE Info to Utilities - URPN Letter 1a - GDOT Review            | 5.00d             | Feb-12-2018 | Feb-16-2018 | 31.00d      | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A8300                              | Relocated Utility Plans - URPN Letter 2                                  | 10.00d            | Mar-14-2018 | Mar-23-2018 | 6.00d       | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A8320                              | Relocated Utility Plans - URPN Letter 2 - Utility Company Review         | 90.00d            | Mar-24-2018 | Jun-21-2018 | 6.00d       | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A8310                              | Relocated Utility Plans - URPN Letter 2 - GDOT Review                    | 5.00d             | Mar-24-2018 | Mar-28-2018 | 91.00d      | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A11860                             | Prepare Utility Retention Request  | 5.00d             | Jun-17-2018 | Jun-21-2018 | 81.00d      | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A8325                              | Prepare Utility Plans & Agreements                                       | 14.00d            | Jun-22-2018 | Jul-05-2018 | 6.00d       | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

■ Primary Baseline  
■ Critical Remaining Work  
■ Actual Work  
■ Remaining Work  
◆ Baseline Milestone  
◆ Milestone

**I-85 Widening, Design-Build**  
**PI No. 110610, Gwinnett & Barrow**  
**Counties**

Data Date: Sep-15-2017



C. W. Matthews  
Contracting Co., Inc.

## Proposal Schedule Cost Loaded

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| Activity ID                               | Activity Name   | Original Duration | Start       | Finish      | Total Float | Budgeted Expense Cost |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---|---|-------------------|-------------|-------------|-------------|-----------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|   |   |                   |             |             |             |                       | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| A11870                                    | GDOT Review Utility Retention Request   | 14.00d            | Jun-22-2018 | Jul-05-2018 | 81.00d      | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A8327                                     | Utility Plans & Agreements - Utility Review                                       | 60.00d            | Jul-06-2018 | Sep-03-2018 | 6.00d       | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A8326                                     | Utility Plans & Agreements - GDOT Review  | 30.00d            | Jul-06-2018 | Aug-04-2018 | 36.00d      | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A8330                                     | Preliminary Utility Status Report - URPN Letter 6 - Notice to Proceed with Permit | 5.00d             | Sep-04-2018 | Sep-08-2018 | 6.00d       | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A11850                                    | Preliminary Utility Status Report - URPN Letter 6 - Utility Company Review        | 5.00d             | Sep-09-2018 | Sep-13-2018 | 11.00d      | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A11840                                    | Preliminary Utility Status Report - URPN Letter 6 - GDOT Review                   | 10.00d            | Sep-09-2018 | Sep-18-2018 | 6.00d       | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A11880                                    | GDOT Issues GUPS Permit   | 0.00d             | Sep-18-2018 | Sep-18-2018 | 6.00d       | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Survey                                    |   | 60.00d            | Dec-14-2017 | Feb-11-2018 | 99.00d      | \$264,101.73          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12890                                    | Prepare Topographic Mapping Package   | 30.00d            | Dec-14-2017 | Jan-12-2018 | 115.00d     | \$181,361.19          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A11660                                    | Prepare Survey Control Package  | 30.00d            | Dec-14-2017 | Jan-12-2018 | 99.00d      | \$82,740.53           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12900                                    | Topographic Mapping - GDOT Review / Acceptance                                    | 14.00d            | Jan-13-2018 | Jan-26-2018 | 115.00d     | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12880                                    | Survey Control Package - GDOT Review / Acceptance                                 | 30.00d            | Jan-13-2018 | Feb-11-2018 | 99.00d      | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Concept Layout Plan                       |   | 68.00d            | Dec-14-2017 | Feb-19-2018 | 17.00d      | \$190,624.33          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A11490                                    | Prepare Concept Layout Plan Submittal   | 7.00d             | Dec-14-2017 | Dec-20-2017 | 4.00d       | \$172,504.44          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A11500                                    | Concept Layout Plan - GDOT Review   | 30.00d            | Dec-24-2017 | Jan-22-2018 | 1.00d       | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A11680                                    | Concept Layout Plan - Address GDOT Comments & Resubmit                            | 14.00d            | Jan-23-2018 | Feb-05-2018 | 1.00d       | \$18,119.89           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A11690                                    | Concept Layout Plan Resubmittal - GDOT Review                                     | 14.00d            | Feb-06-2018 | Feb-19-2018 | 17.00d      | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| ITS                                       |   | 180.00d           | Feb-19-2018 | Aug-18-2018 | 163.00d     | \$668,465.68          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A11920                                    | ITS Design Workshop   | 0.00d             | Feb-19-2018 | Feb-19-2018 | 163.00d     | \$33,423.28           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A9540                                     | Prepare 3D Visualization of CCTV Camera Coverage Submittal                        | 30.00d            | Feb-20-2018 | Mar-21-2018 | 163.00d     | \$200,539.71          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A9550                                     | 3D Visualization of CCTV Coverage - GDOT Review                                   | 30.00d            | Mar-22-2018 | Apr-20-2018 | 163.00d     | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A9560                                     | Preliminary ITS Plans Submittal   | 30.00d            | Apr-21-2018 | May-20-2018 | 163.00d     | \$267,386.27          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A9570                                     | Preliminary ITS Plans - GDOT Review   | 30.00d            | May-21-2018 | Jun-19-2018 | 163.00d     | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A9580                                     | Final ITS Plans Submittal   | 30.00d            | Jun-20-2018 | Jul-19-2018 | 163.00d     | \$133,693.14          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A9590                                     | Final ITS Plans - GDOT Review   | 30.00d            | Jul-20-2018 | Aug-18-2018 | 163.00d     | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A11930                                    | ITS Plans RFC   | 0.00d             | Aug-18-2018 | Aug-18-2018 | 163.00d     | \$33,423.28           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Transportation Management Plan            |   | 120.00d           | Dec-14-2017 | Apr-12-2018 | 83.00d      | \$128,976.04          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A11440                                    | Transportation Management Plan - Submittal  | 90.00d            | Dec-14-2017 | Mar-13-2018 | 83.00d      | \$128,976.04          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A11450                                    | Transportation Management Plan - GDOT Review / Acceptance                         | 30.00d            | Mar-14-2018 | Apr-12-2018 | 83.00d      | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Emergency Access Configuration/Interval   |   | 58.00d            | Feb-20-2018 | Apr-18-2018 | 262.00d     | \$39,321.51           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A17410                                    | Prepare Emergency Access Configuration/Interval Plan Submittal                    | 30.00d            | Feb-20-2018 | Mar-21-2018 | 262.00d     | \$35,389.36           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A17420                                    | Emergency Access Configuration/Interval Plan - GDOT Review                        | 14.00d            | Mar-22-2018 | Apr-04-2018 | 262.00d     | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A17430                                    | Emergency Access Configuration/Interval Plan - Address GDOT Comments & Resubmit   | 7.00d             | Apr-05-2018 | Apr-11-2018 | 262.00d     | \$3,932.15            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A17440                                    | Emergency Access Configuration/Interval Plan Resubmittal - GDOT Review            | 7.00d             | Apr-12-2018 | Apr-18-2018 | 262.00d     | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Begin Project to Hamilton Mill            |   | 171.00d           | Dec-14-2017 | Jun-02-2018 | 480.00d     | \$273,623.66          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Roadway                                   |   | 164.00d           | Dec-21-2017 | Jun-02-2018 | 480.00d     | \$160,424.51          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12650                                    | Prepare Preliminary Roadway Design Plans - Begin to Hamilton Mill                 | 30.00d            | Dec-21-2017 | Jan-19-2018 | 542.00d     | \$115,124.80          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12660                                    | Preliminary Roadway Design Plans - GDOT Review - Begin to Hamilton Mill           | 14.00d            | Mar-08-2018 | Mar-21-2018 | 495.00d     | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12000                                    | Prepare Final Roadway Design Plans - Begin to Hamilton Mill                       | 30.00d            | Mar-22-2018 | Apr-20-2018 | 495.00d     | \$30,199.81           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12010                                    | Final Roadway Design Plans - GDOT Review / Acceptance - Begin to Hamilton Mill    | 14.00d            | Apr-21-2018 | May-04-2018 | 495.00d     | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12020                                    | Final Roadway Design Plans - Address Comments - Begin to Hamilton Mill            | 14.00d            | May-05-2018 | May-18-2018 | 495.00d     | \$7,549.95            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12030                                    | Roadway Design Plans - RFC - Begin to Hamilton Mill                               | 0.00d             | Jun-02-2018 | Jun-02-2018 | 480.00d     | \$7,549.95            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Signing, Pavement Marking & Signalization |   | 164.00d           | Dec-21-2017 | Jun-02-2018 | 480.00d     | \$72,932.73           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12490                                    | Prepare Preliminary Signing & Marking Plans - Begin to Hamilton Mill              | 30.00d            | Dec-21-2017 | Jan-19-2018 | 254.00d     | \$53,880.54           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12500                                    | Preliminary Signing & Marking Plans - GDOT Review - Begin to Hamilton Mill        | 45.00d            | Jan-20-2018 | Mar-05-2018 | 254.00d     | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12380                                    | Prepare Final Signing & Marking Plans - Begin to Hamilton Mill                    | 30.00d            | Mar-06-2018 | Apr-04-2018 | 254.00d     | \$15,876.82           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12390                                    | Final Signing & Marking Plans - GDOT Review / Acceptance - Begin to Hamilton Mill | 45.00d            | Apr-05-2018 | May-19-2018 | 254.00d     | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12400                                    | Final Signing & Marking Plans - Address Comments - Begin to Hamilton Mill         | 14.00d            | May-20-2018 | Jun-02-2018 | 480.00d     | \$3,175.36            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Traffic Control                           |   | 74.00d            | Dec-14-2017 | Feb-25-2018 | 577.00d     | \$40,266.42           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Staging Plans                             |   | 74.00d            | Dec-14-2017 | Feb-25-2018 | 577.00d     | \$40,266.42           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A11460                                    | Prepare Staging Plans - Begin to Hamilton Mill                                    | 30.00d            | Dec-14-2017 | Jan-12-2018 | 577.00d     | \$36,239.77           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A11470                                    | Staging Plans - GDOT Review / Acceptance - Begin to Hamilton Mill                 | 30.00d            | Jan-13-2018 | Feb-11-2018 | 577.00d     | \$0.00                |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12410                                    | Staging Plans - Address Comments - Begin to Hamilton Mill                         | 14.00d            | Feb-12-2018 | Feb-25-2018 | 577.00d     | \$4,026.64            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Hamilton Mill to SR211                    |   | 362.00d           | Dec-21-2017 | Dec-17-2018 | 123.00d     | \$1,277,849.50        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Environmental                             |   | 186.00d           | Dec-21-2017 | Jun-24-2018 | 92.00d      | \$148,886.51          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

Primary Baseline  
Actual Work  
Remaining Work  
Critical Remaining Work  
Baseline Milestone  
Milestone

## I-85 Widening, Design-Build PI No. 110610, Gwinnett & Barrow Counties

Data Date: Sep-15-2017



C. W. Matthews  
Contracting Co., Inc.

## Proposal Schedule Cost Loaded

Submitted: August 25, 2017  
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| Activity ID                        | Activity Name   | Original Duration | Start       | Finish      | Total Float | Budgeted Expense Cost |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|------------------------------------|---|-------------------|-------------|-------------|-------------|-----------------------|---|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|----|----|
|                                    |   |                   |             |             |             |                       | 2018  |    |    |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |    |    |    |    |
|                                    |   |                   |             |             |             |                       | Q3  | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3 | Q4 |
| Erosion Control Plans              |   |                   |             |             |             |                       | Jun-24-2018, Erosion Control Plans              |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A13030                             | Prepare Final ESC Plan - Flowery Branch   | 186.00d           | Dec-21-2017 | Jun-24-2018 | 92.00d      | \$148,886.51          |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A13020                             | Final ESC Plan Flowery Branch - GDOT Review / Approval                          | 30.00d            | Dec-21-2017 | Jan-19-2018 | 183.00d     | \$35,432.57           |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A13040                             | Final ESC Plan Flowery Branch - Address GDOT Comments                           | 30.00d            | Jan-20-2018 | Feb-18-2018 | 183.00d     | \$0.00                |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A13040                             | Final ESC Plan Flowery Branch - Address GDOT Comments                           | 14.00d            | Feb-19-2018 | Mar-04-2018 | 183.00d     | \$3,250.89            |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A13050                             | ESC Plan Flowery Branch - RFC   | 0.00d             |             | Mar-04-2018 | 183.00d     | \$1,625.45            |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A13060                             | Prepare NOI - Flowery Branch  | 7.00d             | Mar-05-2018 | Mar-11-2018 | 183.00d     | \$1,625.45            |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A13070                             | EPD Review of NOI - Flowery Branch  | 14.00d            | Mar-12-2018 | Mar-25-2018 | 183.00d     | \$0.00                |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A11520                             | Prepare Final ESC Plan - Hamilton Mill to SR 211                                | 30.00d            | Mar-22-2018 | Apr-20-2018 | 92.00d      | \$87,446.81           |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A11510                             | Final ESC Plan - GDOT Review / Approval - Hamilton Mill to SR 211               | 30.00d            | Apr-21-2018 | May-20-2018 | 92.00d      | \$0.00                |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A11530                             | Final ESC Plan Address GDOT Comments - Hamilton Mill to SR 211                  | 14.00d            | May-21-2018 | Jun-03-2018 | 92.00d      | \$9,752.67            |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A11540                             | ESC Plan - RFC - Hamilton Mill to SR 211  | 0.00d             |             | Jun-03-2018 | 92.00d      | \$4,876.34            |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A11640                             | Prepare NOI - Hamilton Mill to SR 211   | 7.00d             | Jun-04-2018 | Jun-10-2018 | 92.00d      | \$4,876.34            |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A11650                             | EPD Review of NOI - Hamilton Mill to SR 211                                     | 14.00d            | Jun-11-2018 | Jun-24-2018 | 92.00d      | \$0.00                |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Geotechnical                       |   |                   |             |             |             |                       | Jul-14-2018, Geotechnical                       |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Bridge on Spout Springs over I-85  |   |                   |             |             |             |                       | Jul-14-2018, Bridge on Spout Springs over I-85  |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A11080                             | Perform Additional Borings Spout Springs over I-85                              | 14.00d            | May-02-2018 | Jul-14-2018 | 102.00d     | \$41,351.08           |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A11090                             | Prepare BFI Spout Springs over I-85   | 30.00d            | May-02-2018 | May-15-2018 | 102.00d     | \$20,675.54           |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A11100                             | BFI Spout Springs over I-85 - GDOT Review / Acceptance                          | 30.00d            | May-16-2018 | Jun-14-2018 | 102.00d     | \$0.00                |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A11100                             | BFI Spout Springs over I-85 - GDOT Review / Acceptance                          | 30.00d            | Jun-15-2018 | Jul-14-2018 | 102.00d     | \$0.00                |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Bridge on Flowery Branch over I-85 |   |                   |             |             |             |                       | Mar-18-2018, Bridge on Flowery Branch over I-85 |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A11170                             | Perform Additional Borings Flowery Branch over I-85                             | 14.00d            | Jan-04-2018 | Mar-18-2018 | 25.00d      | \$41,351.08           |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A11180                             | Prepare BFI Flowery Branch over I-85  | 30.00d            | Jan-04-2018 | Jan-17-2018 | 25.00d      | \$20,675.54           |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A11180                             | Prepare BFI Flowery Branch over I-85  | 30.00d            | Jan-18-2018 | Feb-16-2018 | 25.00d      | \$20,675.54           |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A11190                             | BFI Flowery Branch over I-85 - GDOT Review / Acceptance                         | 30.00d            | Feb-17-2018 | Mar-18-2018 | 25.00d      | \$0.00                |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A11190                             | BFI Flowery Branch over I-85 - GDOT Review / Acceptance                         | 30.00d            | Mar-18-2018 | Mar-18-2018 | 25.00d      | \$0.00                |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Retaining Walls                    |   |                   |             |             |             |                       | Jul-14-2018, Retaining Walls                    |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12770                             | Perform Additional Borings Walls - Hamilton Mill to SR 211                      | 14.00d            | May-02-2018 | May-15-2018 | 25.00d      | \$10,337.77           |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12780                             | Prepare WFs - Hamilton Mill to SR 211   | 30.00d            | May-02-2018 | May-16-2018 | 25.00d      | \$10,337.77           |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A11280                             | WFs - GDOT Review / Acceptance - Hamilton Mill to SR 211                        | 30.00d            | May-16-2018 | Jun-14-2018 | 25.00d      | \$0.00                |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A11280                             | WFs - GDOT Review / Acceptance - Hamilton Mill to SR 211                        | 30.00d            | Jun-15-2018 | Jul-14-2018 | 25.00d      | \$0.00                |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Roadway                            |   |                   |             |             |             |                       | Jun-17-2018, Roadway                            |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12670                             | Prepare Preliminary Roadway Design Plans - Hamilton Mill to SR 211              | 132.00d           | Feb-06-2018 | Jun-17-2018 | 1.00d       | \$217,509.81          |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12670                             | Prepare Preliminary Roadway Design Plans - Hamilton Mill to SR 211              | 30.00d            | Feb-06-2018 | Mar-07-2018 | 1.00d       | \$163,150.15          |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12680                             | Preliminary Roadway Design Plans - GDOT Review - Hamilton Mill to SR 211        | 14.00d            | Mar-08-2018 | Mar-21-2018 | 1.00d       | \$0.00                |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12040                             | Prepare Final Roadway Design Plans - Hamilton Mill to SR 211                    | 60.00d            | Mar-22-2018 | May-20-2018 | 1.00d       | \$36,239.77           |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12050                             | Final Roadway Design Plans - GDOT Review / Acceptance - Hamilton Mill to SR 211 | 14.00d            | May-21-2018 | Jun-03-2018 | 1.00d       | \$0.00                |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12060                             | Final Roadway Design Plans - Address Comments - Hamilton Mill to SR 211         | 14.00d            | Jun-04-2018 | Jun-17-2018 | 1.00d       | \$9,059.94            |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12070                             | Roadway Design Plans - RFC - Hamilton Mill to SR 211                            | 0.00d             |             | Jun-17-2018 | 1.00d       | \$9,059.94            |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12070                             | Roadway Design Plans - RFC - Hamilton Mill to SR 211                            | 0.00d             | Jun-17-2018 | Jun-17-2018 | 1.00d       | \$9,059.94            |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Drainage                           |   |                   |             |             |             |                       | Jun-05-2018, Drainage                           |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12120                             | Prepare Preliminary Drainage Design - Hamilton Mill to SR 211                   | 120.00d           | Feb-06-2018 | Jun-05-2018 | 13.00d      | \$240,691.46          |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12120                             | Prepare Preliminary Drainage Design - Hamilton Mill to SR 211                   | 30.00d            | Feb-06-2018 | Mar-07-2018 | 1.00d       | \$148,185.06          |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12700                             | Prepare Storm Sewer Drainage Report - Hamilton Mill to SR 211                   | 30.00d            | Mar-08-2018 | Apr-06-2018 | 59.00d      | \$23,126.60           |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12690                             | Prepare Final Drainage Design - Hamilton Mill to SR 211                         | 30.00d            | Mar-08-2018 | Apr-06-2018 | 13.00d      | \$57,816.50           |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12720                             | Prepare Drainage Design Report - Hamilton Mill to SR 211                        | 30.00d            | Apr-07-2018 | May-06-2018 | 13.00d      | \$11,563.30           |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12710                             | Storm Sewer Drainage Report - GDOT Review - Hamilton Mill to SR 211             | 14.00d            | Apr-07-2018 | Apr-20-2018 | 59.00d      | \$0.00                |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12420                             | Drainage Design Report - GDOT Review - Hamilton Mill to SR 211                  | 30.00d            | May-07-2018 | Jun-05-2018 | 13.00d      | \$0.00                |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12420                             | Drainage Design Report - GDOT Review - Hamilton Mill to SR 211                  | 30.00d            | May-07-2018 | Jun-05-2018 | 13.00d      | \$0.00                |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Structures                         |   |                   |             |             |             |                       | Dec-17-2018, Structures                         |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Bridge on Spout Springs over I-85  |   |                   |             |             |             |                       | Aug-27-2018, Bridge on Spout Springs over I-85  |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A11550                             | Prepare Preliminary Bridge Plans - Spout Springs over I-85                      | 148.00d           | Apr-02-2018 | Aug-27-2018 | 102.00d     | \$125,437.64          |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A11550                             | Prepare Preliminary Bridge Plans - Spout Springs over I-85                      | 30.00d            | Apr-02-2018 | May-01-2018 | 25.00d      | \$34,803.66           |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A11560                             | Preliminary Bridge Plans Spout Springs over I-85 - GDOT Review                  | 14.00d            | May-02-2018 | May-15-2018 | 102.00d     | \$0.00                |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A8220                              | Final Bridge Plans Submittal - Spout Springs over I-85                          | 60.00d            | May-16-2018 | Jul-14-2018 | 102.00d     | \$79,032.77           |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A8230                              | Final Bridge Plans Spout Springs over I-85 - GDOT Review / Approval             | 30.00d            | Jul-15-2018 | Aug-13-2018 | 102.00d     | \$0.00                |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A8240                              | Final Bridge Plans Spout Springs over I-85 - Address GDOT Comments              | 14.00d            | Aug-14-2018 | Aug-27-2018 | 102.00d     | \$5,800.61            |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A11570                             | Bridge Plans Spout Springs over I-85 - RFC                                      | 0.00d             |             | Aug-27-2018 | 102.00d     | \$5,800.61            |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A11570                             | Bridge Plans Spout Springs over I-85 - RFC                                      | 0.00d             | Aug-27-2018 | Aug-27-2018 | 102.00d     | \$5,800.61            |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Bridge on Flowery Branch over I-85 |   |                   |             |             |             |                       | Apr-01-2018, Bridge on Flowery Branch over I-85 |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A8880                              | Prepare Preliminary Bridge Plans - Flowery Branch over I-85                     | 102.00d           | Dec-21-2017 | Apr-01-2018 | 25.00d      | \$125,437.64          |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A8880                              | Prepare Preliminary Bridge Plans - Flowery Branch over I-85                     | 14.00d            | Dec-21-2017 | Jan-03-2018 | 25.00d      | \$34,803.66           |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A11700                             | Preliminary Bridge Plans Flowery Branch over I-85 - GDOT Review                 | 14.00d            | Jan-04-2018 | Jan-17-2018 | 25.00d      | \$0.00                |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A11710                             | Final Bridge Plans Submittal - Flowery Branch over I-85                         | 30.00d            | Jan-18-2018 | Feb-16-2018 | 25.00d      | \$79,032.77           |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A8940                              | Final Bridge Plans Flowery Branch over I-85 - GDOT Review / Approval            | 30.00d            | Feb-17-2018 | Mar-18-2018 | 25.00d      | \$0.00                |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A11720                             | Final Bridge Plans Flowery Branch over I-85 - Address GDOT Comments             | 14.00d            | Mar-19-2018 | Apr-01-2018 | 25.00d      | \$5,800.61            |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A11730                             | Bridge Plans Flowery Branch over I-85 - RFC                                     | 0.00d             |             | Apr-01-2018 | 25.00d      | \$5,800.61            |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A11730                             | Bridge Plans Flowery Branch over I-85 - RFC                                     | 0.00d             | Apr-01-2018 | Apr-01-2018 | 25.00d      | \$5,800.61            |   |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |

Primary Baseline  
Actual Work  
Remaining Work  
Critical Remaining Work  
Baseline Milestone  
Milestone

I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow  
Counties

Data Date: Sep-15-2017



C. W. Matthews  
Contracting Co., Inc.

## Proposal Schedule Cost Loaded

Submitted: August 25, 2017  
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| Activity ID                                     | Activity Name   | Original Duration | Start       | Finish      | Total Float | Budgeted Expense Cost | Q3   | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
|---|---|-------------------|-------------|-------------|-------------|-----------------------|--|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Retaining Walls                                 |   |                   |             |             |             |                       | Aug-27-2018: Retaining Walls                                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A11740  | Prepare Preliminary Wall Plans - Hamilton Mill to SR 211  | 30.00d            | Apr-02-2018 | May-01-2018 | 25.00d      | \$23,518.70           |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A11750  | Preliminary Wall Plans - GDOT Review - Hamilton Mill to SR 211                                    | 14.00d            | May-02-2018 | May-15-2018 | 55.00d      | \$0.00                |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A9020   | Final Wall Plans - Submittal - Hamilton Mill to SR 211  | 30.00d            | May-16-2018 | Jun-14-2018 | 55.00d      | \$4,026.64            |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A9030   | Final Wall Plans - GDOT Review / Approval - Hamilton Mill to SR 211                               | 30.00d            | Jul-15-2018 | Aug-13-2018 | 25.00d      | \$0.00                |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A9040   | Final Wall Plans - Address GDOT Comments - Hamilton Mill to SR 211                                | 14.00d            | Aug-14-2018 | Aug-27-2018 | 25.00d      | \$1,006.66            |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A9050   | Wall Plans - RFC - Hamilton Mill to SR 211  | 0.00d             |             | Aug-27-2018 | 25.00d      | \$1,006.66            |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Sound Barriers                                  |   |                   |             |             |             |                       | Dec-17-2018: Sound Barriers                                  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A11760  | Prepare Preliminary Sound Barrier Plans - Hamilton Mill to SR 211                                 | 30.00d            | Sep-05-2018 | Oct-04-2018 | 123.00d     | \$78,205.61           |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A11770  | Preliminary Sound Barrier Plans - GDOT Review - Hamilton Mill to SR 211                           | 14.00d            | Oct-05-2018 | Oct-18-2018 | 123.00d     | \$0.00                |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A11780  | Final Sound Barrier Plans - Submittal - Hamilton Mill to SR 211                                   | 30.00d            | Oct-19-2018 | Nov-17-2018 | 123.00d     | \$34,390.08           |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A11790  | Final Sound Barrier Plans - GDOT Review / Approval - Hamilton Mill to SR 211                      | 30.00d            | Nov-18-2018 | Dec-17-2018 | 123.00d     | \$0.00                |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A11800  | Sound Barrier Plans - RFC - Hamilton Mill to SR 211   | 0.00d             |             | Dec-17-2018 | 123.00d     | \$11,463.36           |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Signing, Pavement Marking & Signalization       |   |                   |             |             |             |                       | Jun-02-2018: Signing, Pavement Marking & Signalization       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12510  | Prepare Preliminary Signing, Marking & Signalization Plans - Hamilton Mill to SR 211              | 30.00d            | Dec-21-2017 | Jan-19-2018 | 16.00d      | \$53,880.54           |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12520  | Preliminary Signing, Marking & Signalization Plans - GDOT Review - Hamilton Mill to SR 211        | 45.00d            | Jan-20-2018 | Mar-05-2018 | 16.00d      | \$0.00                |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12430  | Prepare Final Signing, Marking & Signalization Plans - Hamilton Mill to SR 211                    | 30.00d            | Mar-06-2018 | Apr-04-2018 | 16.00d      | \$15,876.82           |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12440  | Final Signing, Marking & Signalization Plans - GDOT Review / Acceptance - Hamilton Mill to SR 211 | 45.00d            | Apr-05-2018 | May-19-2018 | 16.00d      | \$0.00                |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12450  | Final Signing, Marking & Signalization Plans - Address Comments - Hamilton Mill to SR 211         | 14.00d            | May-20-2018 | Jun-02-2018 | 16.00d      | \$3,175.36            |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Traffic Control                                 |   |                   |             |             |             |                       | Apr-03-2018: Traffic Control                                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Staging Plans                                   |   |                   |             |             |             |                       | Apr-03-2018: Staging Plans                                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12460  | Prepare Staging Plans - Hamilton Mill to SR 211   | 60.00d            | Dec-21-2017 | Feb-18-2018 | 76.00d      | \$81,905.00           |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12470  | Staging Plans - GDOT Review / Acceptance - Hamilton Mill to SR 211                                | 30.00d            | Feb-19-2018 | Mar-20-2018 | 76.00d      | \$0.00                |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12480  | Staging Plans - Address Comments - Hamilton Mill to SR 211  | 14.00d            | Mar-21-2018 | Apr-03-2018 | 76.00d      | \$8,053.28            |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| SR 211 to End Project                           |   |                   |             |             |             |                       | Dec-17-2018: SR 211 to End Project                           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Environmental                                   |   |                   |             |             |             |                       | Sep-22-2018: Environmental                                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Erosion Control Plans                           |   |                   |             |             |             |                       | Sep-22-2018: Erosion Control Plans                           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A11950  | Prepare Final ESC Plan - SR 211 to End  | 60.00d            | May-21-2018 | Jul-19-2018 | 34.00d      | \$78,777.77           |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A11940  | Final ESC Plan - GDOT Review / Approval - SR 211 to End   | 30.00d            | Jul-20-2018 | Aug-18-2018 | 34.00d      | \$0.00                |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A11960  | Final ESC Plan Address GDOT Comments - SR 211 to End  | 14.00d            | Aug-19-2018 | Sep-01-2018 | 34.00d      | \$8,669.04            |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A11970  | ESC Plan - RFC - SR 211 to End  | 0.00d             | Sep-01-2018 | 34.00d      | \$4,334.52  |                       |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A11980  | Prepare NOI - SR 211 to End   | 7.00d             | Sep-02-2018 | Sep-08-2018 | 34.00d      | \$4,334.52            |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A11990  | EPD Review of NOI - SR 211 to End   | 14.00d            | Sep-09-2018 | Sep-22-2018 | 34.00d      | \$0.00                |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Geotechnical                                    |   |                   |             |             |             |                       | Aug-18-2018: Geotechnical                                    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Bridge on Liberty Church/Jesse Cronin over I-85 |   |                   |             |             |             |                       | Aug-13-2018: Bridge on Liberty Church/Jesse Cronin over I-85 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12790  | Perform Additional Borings Liberty Church/Jesse Cronin over I-85                                  | 14.00d            | Jun-01-2018 | Jun-14-2018 | 266.00d     | \$20,675.54           |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12800  | Prepare BFI Liberty Church/Jesse Cronin over I-85   | 30.00d            | Jun-15-2018 | Jul-14-2018 | 266.00d     | \$20,675.54           |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12810  | BFI Liberty Church/Jesse Cronin over I-85 - GDOT Review / Acceptance                              | 30.00d            | Jul-15-2018 | Aug-13-2018 | 266.00d     | \$0.00                |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Dual Bridges on I-85 over Mulberry River        |   |                   |             |             |             |                       | Aug-18-2018: Dual Bridges on I-85 over Mulberry River        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12820  | Perform Additional Borings I-85 over Mulberry River   | 14.00d            | Jun-06-2018 | Jun-19-2018 | 7.00d       | \$20,675.54           |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12830  | Prepare BFI I-85 over Mulberry River  | 30.00d            | Jun-20-2018 | Jul-19-2018 | 7.00d       | \$20,675.54           |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12840  | BFI I-85 over Mulberry River - GDOT Review / Acceptance   | 30.00d            | Jul-20-2018 | Aug-18-2018 | 7.00d       | \$0.00                |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Retaining Walls                                 |   |                   |             |             |             |                       | Aug-18-2018: Retaining Walls                                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12850  | Perform Additional Borings Walls  | 14.00d            | Jun-06-2018 | Jun-19-2018 | 221.00d     | \$10,337.77           |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12860  | Prepare WFs   | 30.00d            | Jun-20-2018 | Jul-19-2018 | 221.00d     | \$10,337.77           |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12870  | WFs - GDOT Review / Acceptance  | 30.00d            | Jul-20-2018 | Aug-18-2018 | 221.00d     | \$0.00                |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Roadway   |   |                   |             |             |             |                       | Oct-17-2018: Roadway   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12910  | Prepare Preliminary Roadway Design Plans - SR 211 to End  | 60.00d            | Mar-08-2018 | May-06-2018 | 7.00d       | \$163,150.15          |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12920  | Preliminary Roadway Design Plans - GDOT Review - SR 211 to End                                    | 14.00d            | May-07-2018 | May-20-2018 | 34.00d      | \$0.00                |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12080  | Prepare Final Roadway Design Plans - SR 211 to End  | 60.00d            | May-21-2018 | Jul-19-2018 | 40.00d      | \$36,239.77           |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12090  | Final Roadway Design Plans - GDOT Review / Acceptance - SR 211 to End                             | 45.00d            | Jul-20-2018 | Sep-02-2018 | 40.00d      | \$0.00                |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12100  | Final Roadway Design Plans - Address Comments - SR 211 to End                                     | 14.00d            | Sep-03-2018 | Sep-16-2018 | 40.00d      | \$9,059.94            |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12110  | Roadway Design Plans - RFC - SR 211 to End  | 0.00d             |             | Oct-17-2018 | 9.00d       | \$9,059.94            |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Drainage  |   |                   |             |             |             |                       | Jul-05-2018: Drainage  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| A12140  | Prepare Preliminary Drainage Design - SR 211 to End   | 60.00d            | Dec-21-2017 | Feb-18-2018 | 130.00d     | \$136,621.76          |  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

- Primary Baseline
- Critical Remaining Work
- Actual Work
- Baseline Milestone
- Remaining Work
- Milestone

## I-85 Widening, Design-Build PI No. 110610, Gwinnett & Barrow Counties

Data Date: Sep-15-2017



C. W. Matthews  
Contracting Co., Inc.

## Proposal Schedule Cost Loaded

Submitted: August 25, 2017  
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| Activity ID                                     | Activity Name  | Original Duration | Start       | Finish      | Total Float | Budgeted Expense Cost |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|---|--|-------------------|-------------|-------------|-------------|-----------------------|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|----|----|
|   |  |                   |             |             |             |                       | 2018 |    |    |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |    |    |    |    |
|   |  |                   |             |             |             |                       | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3 | Q4 |
| A12940  | Prepare Storm Sewer Drainage Report - SR 211 to End                                | 30.00d            | Feb-19-2018 | Mar-20-2018 | 206.00d     | \$23,126.60           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12130  | Prepare Final Drainage Design - SR 211 to End                                      | 60.00d            | Feb-19-2018 | Apr-19-2018 | 130.00d     | \$57,816.50           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12950  | Storm Sewer Drainage Report - GDOT Review - SR 211 to End                          | 14.00d            | Mar-21-2018 | Apr-03-2018 | 206.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12970  | Prepare Hydraulic & Hydrology Report for I-85 over Mulberry River                  | 60.00d            | Apr-07-2018 | Jun-05-2018 | 51.00d      | \$11,563.30           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12960  | Prepare Drainage Design Report - SR 211 to End                                     | 30.00d            | Apr-20-2018 | May-19-2018 | 130.00d     | \$11,563.30           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12930  | Drainage Design Report - GDOT Review - SR 211 to End                               | 30.00d            | May-20-2018 | Jun-18-2018 | 130.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12980  | Hydraulic & Hydrology Report for I-85 over Mulberry River - GDOT Review / Approval | 30.00d            | Jun-06-2018 | Jul-05-2018 | 51.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Signing, Pavement Marking & Signalization       |  |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12560  | Prepare Preliminary Signing & Marking Plans - SR 211 to End                        | 30.00d            | May-07-2018 | Oct-17-2018 | 9.00d       | \$74,857.19           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12570  | Preliminary Signing & Marking Plans - GDOT Review - SR 211 to End                  | 45.00d            | Jun-06-2018 | Jul-20-2018 | 9.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12530  | Prepare Final Signing & Marking Plans - SR 211 to End                              | 30.00d            | Jul-21-2018 | Aug-19-2018 | 9.00d       | \$16,357.93           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12540  | Final Signing & Marking Plans - GDOT Review / Acceptance - SR 211 to End           | 45.00d            | Aug-20-2018 | Oct-03-2018 | 9.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12550  | Final Signing & Marking Plans - Address Comments - SR 211 to End                   | 14.00d            | Oct-04-2018 | Oct-17-2018 | 9.00d       | \$3,271.59            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Structures                                      |  |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Bridge on Liberty Church/Jesse Cronin over I-85 |  |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12320  | Prepare Preliminary Bridge Plans - Liberty Church/Jesse Cronin over I-85           | 30.00d            | May-02-2018 | Sep-26-2018 | 266.00d     | \$43,530.00           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12330  | Preliminary Bridge Plans Liberty Church/Jesse Cronin over I-85 - GDOT Review       | 14.00d            | May-02-2018 | Sep-26-2018 | 266.00d     | \$125,437.64          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12340  | Final Bridge Plans - Submittal - Liberty Church/Jesse Cronin over I-85             | 60.00d            | Jun-01-2018 | Jun-14-2018 | 266.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12350  | Final Bridge Plans Liberty Church/Jesse Cronin over I-85 - GDOT Review / Approval  | 30.00d            | Aug-14-2018 | Sep-12-2018 | 266.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12360  | Final Bridge Plans Liberty Church/Jesse Cronin over I-85 - Address GDOT Comments   | 14.00d            | Sep-13-2018 | Sep-26-2018 | 266.00d     | \$5,800.61            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12370  | Bridge Plans Liberty Church/Jesse Cronin over I-85 - RFC                           | 0.00d             | Sep-26-2018 | Sep-26-2018 | 266.00d     | \$5,800.61            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Dual Bridges on I-85 over Mulberry River        |  |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12150  | Prepare Preliminary Bridge Plans - I-85 over Mulberry River                        | 30.00d            | May-07-2018 | Oct-01-2018 | 7.00d       | \$241,449.83          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12160  | Preliminary Bridge Plans I-85 over Mulberry River - GDOT Review                    | 14.00d            | Jun-06-2018 | Jun-19-2018 | 7.00d       | \$79,032.77           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12170  | Final Bridge Plans - Submittal - I-85 over Mulberry River                          | 60.00d            | Jun-20-2018 | Aug-18-2018 | 7.00d       | \$139,214.63          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12180  | Final Bridge Plans I-85 over Mulberry River - GDOT Review / Approval               | 30.00d            | Aug-19-2018 | Sep-17-2018 | 7.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12190  | Final Bridge Plans I-85 over Mulberry River - Address GDOT Comments                | 14.00d            | Sep-18-2018 | Oct-01-2018 | 7.00d       | \$11,601.22           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12200  | Bridge Plans I-85 over Mulberry River - RFC  | 0.00d             | Oct-01-2018 | Oct-01-2018 | 7.00d       | \$11,601.22           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Retaining Walls                                 |  |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12210  | Prepare Preliminary Wall Plans - SR 211 to End                                     | 30.00d            | May-07-2018 | Jun-05-2018 | 221.00d     | \$29,558.66           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12220  | Preliminary Wall Plans - GDOT Review - SR 211 to End                               | 14.00d            | Jun-06-2018 | Jun-19-2018 | 251.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12230  | Final Wall Plans - Submittal - SR 211 to End                                       | 30.00d            | Jun-20-2018 | Jul-19-2018 | 251.00d     | \$4,026.64            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12240  | Final Wall Plans - GDOT Review / Approval - SR 211 to End                          | 30.00d            | Aug-19-2018 | Sep-17-2018 | 221.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12250  | Final Wall Plans - Address GDOT Comments - SR 211 to End                           | 14.00d            | Sep-18-2018 | Oct-01-2018 | 221.00d     | \$1,006.66            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12260  | Wall Plans - RFC - SR 211 to End   | 0.00d             | Oct-01-2018 | Oct-01-2018 | 221.00d     | \$1,006.66            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Sound Barriers                                  |  |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12270  | Prepare Preliminary Sound Barrier Plans - SR 211 to End                            | 30.00d            | Sep-05-2018 | Dec-17-2018 | 123.00d     | \$38,083.85           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12280  | Preliminary Sound Barrier Plans - GDOT Review - SR 211 to End                      | 14.00d            | Oct-05-2018 | Oct-18-2018 | 123.00d     | \$26,620.49           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12290  | Final Sound Barrier Plans - Submittal - SR 211 to End                              | 30.00d            | Oct-19-2018 | Nov-17-2018 | 123.00d     | \$8,597.52            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12300  | Final Sound Barrier Plans - GDOT Review / Approval - SR 211 to End                 | 30.00d            | Nov-18-2018 | Dec-17-2018 | 123.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12310  | Sound Barrier Plans - RFC - SR 211 to End  | 0.00d             | Dec-17-2018 | Dec-17-2018 | 123.00d     | \$2,865.84            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Traffic Control                                 |  |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Staging Plans                                   |  |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12580  | Prepare Staging Plans - SR 211 to End  | 60.00d            | May-07-2018 | Jul-05-2018 | 69.00d      | \$89,958.29           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12590  | Staging Plans - GDOT Review / Acceptance - SR 211 to End                           | 30.00d            | Jul-06-2018 | Aug-04-2018 | 69.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A12600  | Staging Plans - Address Comments - SR 211 to End                                   | 14.00d            | Aug-05-2018 | Aug-18-2018 | 69.00d      | \$8,053.28            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Construction                                    |  |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A1460   | Begin Construction/Mobilize - Segment 1 - Milling & Leveling Only                  | 0.00d             | Jul-05-2018 | Jul-14-2020 | 0.00d       | \$98,521,423.55       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A1710   | Begin Construction/Mobilize - Segment 1 - Median Construction                      | 0.00d             | Sep-19-2018 |             | 6.00d       | \$635,962.99          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A1450   | Begin Construction/Mobilize - PI110600 Overlap                                     | 0.00d             | Oct-03-2018 |             | 358.00d     | \$254,385.19          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A1700   | Begin Construction - Remaining Segments  | 0.00d             | Oct-18-2018 |             | 9.00d       | \$1,017,540.80        |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| PI 110600 Overlap - I-985 to Hamilton Mill Rd   |  |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| I-85 Northbound                                 |  |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Traffic Control                                 |  |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A13900  | Asphalt Cure - 30 Days - NB - PI110600 Overlap - Segment 0                         | 30.00d            | Oct-07-2018 | Nov-05-2018 | 365.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |

- Primary Baseline
- Actual Work
- Remaining Work
- Critical Remaining Work
- Baseline Milestone
- Milestone

## I-85 Widening, Design-Build PI No. 110610, Gwinnett & Barrow Counties

Data Date: Sep-15-2017



C. W. Matthews  
Contracting Co., Inc.

## Proposal Schedule Cost Loaded

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| Activity ID                                     | Activity Name  | Original Duration | Start       | Finish      | Total Float | Budgeted Expense Cost |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
|---|--|-------------------|-------------|-------------|-------------|-----------------------|---------|-------------|-------------|--------|-----------------|----|----|----|------|----|----|----|------|----|----|----|----|----|
|   |  |                   |             |             |             |                       | 2018    |             |             |        | 2019            |    |    |    | 2020 |    |    |    | 2021 |    |    |    |    |    |
|   |  |                   |             |             |             |                       | Q3      | Q4          | Q1          | Q2     | Q3              | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3 | Q4 |
| A13920  | Place Final Pavement Markings - NB - PI110600 Overlap - Segment 0                    | 3.00d             | Nov-06-2018 | Nov-10-2018 | 223.00d     | \$13,016.84           |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Paving  |  | 4.00d             | Oct-03-2018 | Oct-06-2018 | 125.00d     | \$209,336.58          |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A13880  | MII/Place OGFC Asphaltic Concrete - NB - PI110600 Overlap - Segment 0                | 4.00d             | Oct-03-2018 | Oct-06-2018 | 125.00d     | \$209,336.58          |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| I-85 Southbound                                 |  | 26.00d            | Oct-10-2018 | Nov-20-2018 | 219.00d     | \$222,353.41          |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Paving  |  | 4.00d             | Oct-10-2018 | Oct-13-2018 | 125.00d     | \$209,336.58          |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A13890  | MII/Place OGFC Asphaltic Concrete - SB - PI110600 Overlap - Segment 0                | 4.00d             | Oct-10-2018 | Oct-13-2018 | 125.00d     | \$209,336.58          |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Traffic Control                                 |  | 22.00d            | Oct-14-2018 | Nov-20-2018 | 219.00d     | \$13,016.84           |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A13910  | Asphalt Cure - 30 Days - SB - PI110600 Overlap - Segment 0                           | 30.00d            | Oct-14-2018 | Nov-12-2018 | 358.00d     | \$0.00                |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A13930  | Place Final Pavement Markings - SB - PI110600 Overlap - Segment 0                    | 3.00d             | Nov-13-2018 | Nov-20-2018 | 219.00d     | \$13,016.84           |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Segment 1 - Hamilton Mill Road to Spout Springs |  |                   |             |             |             |                       | 379.00d | Jul-05-2018 | Mar-24-2020 | 74.00d | \$17,806,906.66 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Stage 1 - Shift Traffic to Outside              |  |                   |             |             |             |                       | 27.00d  | Jul-05-2018 | Aug-11-2018 | 0.00d  | \$1,157,644.74  |    |    |    |      |    |    |    |      |    |    |    |    |    |
| I-85 NB Outside Shoulder                        |  | 21.00d            | Jul-05-2018 | Aug-02-2018 | 6.00d       | \$613,671.59          |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Paving  |  | 21.00d            | Jul-05-2018 | Aug-02-2018 | 6.00d       | \$613,671.59          |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15310  | MII Existing Lanes 3" - NB - Segment 1   | 6.00d             | Jul-05-2018 | Jul-11-2018 | 0.00d       | \$164,318.77          |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A1410   | Place Asphaltic Leveling for Cross-Slope Correction - Section 1 & 2 - NB - Segment 1 | 15.00d            | Jul-12-2018 | Aug-02-2018 | 6.00d       | \$449,352.82          |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| I-85 SB Outside Shoulder                        |  | 21.00d            | Jul-12-2018 | Aug-11-2018 | 0.00d       | \$543,973.15          |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Paving  |  | 21.00d            | Jul-12-2018 | Aug-11-2018 | 0.00d       | \$543,973.15          |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15320  | MII Existing Lanes 3" - SB - Segment 1   | 6.00d             | Jul-12-2018 | Jul-18-2018 | 0.00d       | \$164,318.77          |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A13650  | Place Asphaltic Leveling for Cross-Slope Correction - Section 1 & 2 - SB - Segment 1 | 15.00d            | Jul-19-2018 | Aug-11-2018 | 0.00d       | \$379,654.38          |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Stage 2 - Construct Median                      |  |                   |             |             |             |                       | 148.00d | Sep-19-2018 | Jun-01-2019 | 65.00d | \$9,828,656.37  |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Section 1 - 420+00 to 472+80                    |  |                   |             |             |             |                       | 74.00d  | Sep-19-2018 | Feb-01-2019 | 4.00d  | \$3,961,923.35  |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Traffic Control                                 |  | 1.00d             | Sep-19-2018 | Sep-19-2018 | 4.00d       | \$271,685.12          |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A1240   | Install Temporary Barrier SB - Section 1   | 1.00d             | Sep-19-2018 | Sep-19-2018 | 4.00d       | \$135,842.56          |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A1230   | Install Temporary Barrier NB - Section 1   | 1.00d             | Sep-19-2018 | Sep-19-2018 | 4.00d       | \$135,842.56          |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Grading   |  | 39.00d            | Sep-20-2018 | Nov-16-2018 | 14.00d      | \$439,155.23          |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Rough Grade                                     |  | 32.00d            | Sep-20-2018 | Nov-03-2018 | 4.00d       | \$376,221.46          |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A1000   | Remove Cable Barrier & Mow Strip - Section 1   | 4.00d             | Sep-20-2018 | Sep-25-2018 | 4.00d       | \$20,014.14           |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A1010   | Remove Top Soil - Section 1  | 8.00d             | Sep-26-2018 | Oct-04-2018 | 4.00d       | \$118,735.77          |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A1020   | Rough Grade to Subgrade NB - Section 1   | 10.00d            | Oct-05-2018 | Oct-19-2018 | 4.00d       | \$118,735.77          |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A1030   | Rough Grade to Subgrade SB - Section 1   | 10.00d            | Oct-20-2018 | Nov-03-2018 | 4.00d       | \$118,735.77          |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Fine Grade                                      |  | 17.00d            | Oct-20-2018 | Nov-16-2018 | 14.00d      | \$62,933.77           |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A1040   | Fine Grade Subgrade NB - Section 1   | 7.00d             | Oct-20-2018 | Oct-29-2018 | 14.00d      | \$31,466.88           |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A1050   | Fine Grade Subgrade SB - Section 1   | 7.00d             | Nov-05-2018 | Nov-16-2018 | 14.00d      | \$31,466.88           |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Drainage  |  | 2.00d             | Oct-05-2018 | Oct-06-2018 | 22.00d      | \$51,824.79           |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Storm Drain Pipe                                |  | 1.00d             | Oct-05-2018 | Oct-05-2018 | 22.00d      | \$23,016.82           |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A1060   | Install A-1 to A-2 - Section 1   | 1.00d             | Oct-05-2018 | Oct-05-2018 | 22.00d      | \$23,016.82           |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Drainage Structures                             |  | 1.00d             | Oct-06-2018 | Oct-06-2018 | 22.00d      | \$28,807.97           |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A1070   | Construct A-Series Drop Inlets - Section 1   | 1.00d             | Oct-06-2018 | Oct-06-2018 | 22.00d      | \$28,807.97           |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Signs   |  | 6.00d             | Oct-05-2018 | Oct-13-2018 | 18.00d      | \$85,144.21           |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Foundations                                     |  | 6.00d             | Oct-05-2018 | Oct-13-2018 | 18.00d      | \$85,144.21           |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A1080   | Construct Median Sign Foundations (3) - Section 1                                    | 6.00d             | Oct-05-2018 | Oct-13-2018 | 18.00d      | \$85,144.21           |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Barrier Wall                                    |  | 26.00d            | Nov-05-2018 | Dec-21-2018 | 7.00d       | \$764,202.60          |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A1100   | Pour Barrier Wall Footings - Section 1   | 4.00d             | Nov-05-2018 | Nov-10-2018 | 4.00d       | \$138,689.58          |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A1090   | Fine Grade Barrier Wall Pad - Section 1  | 3.00d             | Nov-05-2018 | Nov-09-2018 | 4.00d       | \$13,868.96           |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A1110   | Slip Barrier Wall - Section 1  | 16.00d            | Nov-12-2018 | Dec-10-2018 | 4.00d       | \$540,889.36          |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A1120   | Pour Barrier Wall Sign Transitions - Section 1                                       | 6.00d             | Dec-13-2018 | Dec-21-2018 | 7.00d       | \$70,754.70           |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Base & Paving                                   |  | 44.00d            | Oct-30-2018 | Feb-01-2019 | 4.00d       | \$2,349,911.40        |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Graded Aggr. Base                               |  | 37.00d            | Oct-30-2018 | Jan-18-2019 | 4.00d       | \$819,133.00          |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A1130   | Place GAB NB - Section 1   | 10.00d            | Oct-30-2018 | Nov-16-2018 | 14.00d      | \$385,040.60          |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A1140   | Place GAB SB - Section 1   | 10.00d            | Nov-20-2018 | Dec-06-2018 | 14.00d      | \$385,040.60          |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A1150   | Fine Grade GAB NB - Section 1  | 7.00d             | Dec-13-2018 | Jan-07-2019 | 4.00d       | \$24,525.90           |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A1160   | Fine Grade GAB SB - Section 1  | 7.00d             | Jan-08-2019 | Jan-18-2019 | 4.00d       | \$24,525.90           |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Asphalt   |  | 14.00d            | Jan-08-2019 | Feb-01-2019 | 4.00d       | \$1,530,778.40        |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A1170   | Place 25mm Asphaltic Concrete NB - Section 1   | 5.00d             | Jan-08-2019 | Jan-16-2019 | 6.00d       | \$594,484.51          |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A1190   | Place 19mm Asphaltic Concrete NB - Section 1   | 2.00d             | Jan-17-2019 | Jan-18-2019 | 9.00d       | \$170,904.69          |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A1180   | Place 25mm Asphaltic Concrete SB - Section 1   | 5.00d             | Jan-19-2019 | Jan-28-2019 | 4.00d       | \$594,484.51          |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A1200   | Place 19mm Asphaltic Concrete SB - Section 1   | 2.00d             | Jan-31-2019 | Feb-01-2019 | 4.00d       | \$170,904.69          |         |             |             |        |                 |    |    |    |      |    |    |    |      |    |    |    |    |    |

Primary Baseline Critical Remaining Work  
Actual Work Baseline Milestone  
Remaining Work Milestone

## I-85 Widening, Design-Build PI No. 110610, Gwinnett & Barrow Counties

Data Date: Sep-15-2017



C. W. Matthews  
Contracting Co., Inc.

## Proposal Schedule Cost Loaded

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| Activity ID | Activity Name                |   | Original Duration | Start       | Finish      | Total Float | Budgeted Expense Cost | 2018 |    |    |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |    |    |    |    |
|-------------|------------------------------|---|-------------------|-------------|-------------|-------------|-----------------------|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|----|----|
|             |                              |   |                   |             |             |             |                       | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3 | Q4 |
|             | Section 2 - 472+80 to 518+00 |   | 106.00d           | Nov-26-2018 | Jun-01-2019 | 65.00d      | \$5,866,733.02        |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | Traffic Control              |   | 1.00d             | Feb-02-2019 | Feb-02-2019 | 4.00d       | \$64,930.84           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | A2000                        | Install Temporary Barrier SB - Section 2                            | 1.00d             | Feb-02-2019 | Feb-02-2019 | 4.00d       | \$32,465.42           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | A1990                        | Install Temporary Barrier NB - Section 2                            | 1.00d             | Feb-02-2019 | Feb-02-2019 | 4.00d       | \$32,465.42           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | Grading                      |   | 39.00d            | Feb-04-2019 | Apr-11-2019 | 25.00d      | \$439,155.23          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | Rough Grade                  |   | 32.00d            | Feb-04-2019 | Apr-01-2019 | 4.00d       | \$376,221.46          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | A1760                        | Remove Cable Barrier & Mow Strip - Section 2                        | 4.00d             | Feb-04-2019 | Feb-13-2019 | 4.00d       | \$20,014.14           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | A1770                        | Remove Top Soil - Section 2   | 8.00d             | Feb-14-2019 | Feb-26-2019 | 4.00d       | \$118,735.77          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | A1780                        | Rough Grade to Subgrade NB - Section 2                              | 10.00d            | Feb-27-2019 | Mar-14-2019 | 4.00d       | \$118,735.77          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | A1790                        | Rough Grade to Subgrade SB - Section 2                              | 10.00d            | Mar-15-2019 | Apr-01-2019 | 4.00d       | \$118,735.77          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | Fine Grade                   |   | 17.00d            | Mar-15-2019 | Apr-11-2019 | 25.00d      | \$62,933.77           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | A1800                        | Fine Grade Subgrade NB - Section 2                                  | 7.00d             | Mar-15-2019 | Mar-26-2019 | 17.00d      | \$31,466.88           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | A1810                        | Fine Grade Subgrade SB - Section 2                                  | 7.00d             | Apr-02-2019 | Apr-11-2019 | 25.00d      | \$31,466.88           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | Drainage                     |   | 8.00d             | Feb-27-2019 | Mar-12-2019 | 19.00d      | \$103,649.57          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | Storm Drain Pipe             |   | 5.00d             | Feb-27-2019 | Mar-06-2019 | 19.00d      | \$46,033.64           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | A1820                        | Install B-1 to B-7 - Section 2                                      | 5.00d             | Feb-27-2019 | Mar-06-2019 | 19.00d      | \$46,033.64           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | Drainage Structures          |   | 3.00d             | Mar-09-2019 | Mar-12-2019 | 19.00d      | \$57,615.93           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | A1830                        | Construct B-Series Drop Inlets - Section 2                          | 3.00d             | Mar-09-2019 | Mar-12-2019 | 19.00d      | \$57,615.93           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | Signs                        |   | 46.00d            | Feb-27-2019 | May-08-2019 | 80.00d      | \$53,437.31           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | Foundations                  |   | 4.00d             | Feb-27-2019 | Mar-05-2019 | 20.00d      | \$9,215.55            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | A1840                        | Construct Median Sign Foundations (2) - Section 2                   | 4.00d             | Feb-27-2019 | Mar-05-2019 | 20.00d      | \$9,215.55            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | Structures                   |   | 2.00d             | May-07-2019 | May-08-2019 | 80.00d      | \$44,221.76           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | A3110                        | Install Median Overhead Sign Structures (1) SB - Section 2          | 2.00d             | May-07-2019 | May-08-2019 | 80.00d      | \$44,221.76           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | Barrier Wall                 |   | 30.00d            | Apr-02-2019 | May-13-2019 | 6.00d       | \$955,497.90          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | A1860                        | Pour Barrier Wall Footings - Section 2                              | 4.00d             | Apr-02-2019 | Apr-06-2019 | 4.00d       | \$144,733.64          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | A1850                        | Fine Grade Barrier Wall Pad - Section 2                             | 3.00d             | Apr-02-2019 | Apr-05-2019 | 4.00d       | \$14,473.36           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | A1870                        | Slip Barrier Wall - Section 2                                       | 16.00d            | Apr-08-2019 | May-01-2019 | 4.00d       | \$564,461.20          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | A1880                        | Pour Barrier Wall Sign Transitions - Section 2                      | 4.00d             | May-02-2019 | May-06-2019 | 6.00d       | \$74,222.75           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | A1970                        | Construct Pad & Install Emergency Access Gate - Section 2           | 6.00d             | May-07-2019 | May-13-2019 | 6.00d       | \$157,606.95          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | Base & Paving                |   | 44.00d            | Mar-27-2019 | Jun-01-2019 | 15.00d      | \$2,218,953.88        |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | Graded Aggr. Base            |   | 37.00d            | Mar-27-2019 | May-17-2019 | 15.00d      | \$791,130.20          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | A1890                        | Place GAB NB - Section 2  | 10.00d            | Mar-27-2019 | Apr-11-2019 | 17.00d      | \$371,877.64          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | A1900                        | Place GAB SB - Section 2  | 10.00d            | Apr-12-2019 | Apr-24-2019 | 25.00d      | \$371,877.64          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | A1910                        | Fine Grade GAB NB - Section 2                                       | 7.00d             | May-02-2019 | May-09-2019 | 4.00d       | \$23,687.46           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | A1920                        | Fine Grade GAB SB - Section 2                                       | 7.00d             | May-10-2019 | May-17-2019 | 15.00d      | \$23,687.46           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | Asphalt                      |   | 14.00d            | May-10-2019 | Jun-01-2019 | 15.00d      | \$1,427,823.68        |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | A1930                        | Place 25mm Asphaltic Concrete NB - Section 2                        | 5.00d             | May-10-2019 | May-15-2019 | 4.00d       | \$550,369.51          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | A1950                        | Place 19mm Asphaltic Concrete NB - Section 2                        | 2.00d             | May-16-2019 | May-17-2019 | 4.00d       | \$163,542.33          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | A1940                        | Place 25mm Asphaltic Concrete SB - Section 2                        | 5.00d             | May-18-2019 | May-28-2019 | 15.00d      | \$550,369.51          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | A1960                        | Place 19mm Asphaltic Concrete SB - Section 2                        | 2.00d             | May-29-2019 | Jun-01-2019 | 15.00d      | \$163,542.33          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | Structures                   |   | 105.00d           | Nov-26-2018 | May-31-2019 | 13.00d      | \$2,031,108.29        |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | A15050                       | Closure Duration for Spout Springs - Section 2 (180 Days Allowable) | 180.00d           | Dec-03-2018 | May-31-2019 | 19.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | Retaining Walls              |   | 32.00d            | Jan-11-2019 | Mar-12-2019 | 12.00d      | \$472,668.02          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | A14120                       | Excavate & Pour Leveling Pad - Wall 2 - SB - Section 2              | 3.00d             | Jan-11-2019 | Jan-17-2019 | 8.00d       | \$23,615.56           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | A14080                       | Excavate & Pour Leveling Pad - Wall 1 - NB - Section 2              | 3.00d             | Jan-11-2019 | Jan-17-2019 | 8.00d       | \$19,897.22           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | A14130                       | Construct Wall 2 - Stage 2 - SB - Section 2                         | 8.00d             | Jan-18-2019 | Feb-01-2019 | 8.00d       | \$118,077.78          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | A14090                       | Construct Wall 1 - Stage 1 - NB - Section 2                         | 8.00d             | Jan-18-2019 | Feb-01-2019 | 8.00d       | \$99,486.08           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | A14140                       | Wall 2 Waiting Period - SB - Section 2                              | 30.00d            | Feb-02-2019 | Mar-03-2019 | 18.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | A14100                       | Wall 1 Waiting Period - NB - Section 2                              | 30.00d            | Feb-02-2019 | Mar-03-2019 | 18.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | A14150                       | Construct Wall 2 - Stage 2 - SB - Section 2                         | 6.00d             | Mar-04-2019 | Mar-12-2019 | 12.00d      | \$113,232.38          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | A14110                       | Construct Wall 1 - Stage 2 - NB - Section 2                         | 6.00d             | Mar-04-2019 | Mar-12-2019 | 12.00d      | \$98,359.02           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | Bridge - Spout Springs       |   | 105.00d           | Nov-26-2018 | May-31-2019 | 13.00d      | \$1,558,440.27        |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | A14160                       | Mobilize to Spout Springs - Section 2                               | 6.00d             | Nov-26-2018 | Dec-01-2018 | 10.00d      | \$50,899.45           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | A14170                       | Remove Existing Spout Springs Bridge - Section 2                    | 18.00d            | Dec-03-2018 | Jan-10-2019 | 10.00d      | \$225,112.42          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | Foundations                  |   | 44.00d            | Jan-11-2019 | Mar-16-2019 | 13.00d      | \$138,660.31          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | A14190                       | Excavate/Drive Pile - Bl #2 - Spout Springs - Section 2             | 4.00d             | Jan-11-2019 | Jan-17-2019 | 50.00d      | \$45,121.89           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |

|                  |                         |
|------------------|-------------------------|
| Primary Baseline | Critical Remaining Work |
| Actual Work      | Baseline Milestone      |
| Remaining Work   | Milestone               |

I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow  
Counties

Data Date: Sep-15-2017



C. W. Matthews  
Contracting Co., Inc.

## Proposal Schedule Cost Loaded

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| Activity ID                              | Activity Name   | Original Duration | Start       | Finish      | Total Float | Budgeted Expense Cost | 2018 |    |    |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |  |  |
|--|---|-------------------|-------------|-------------|-------------|-----------------------|------|----|----|----|------|----|----|----|------|----|----|----|------|----|--|--|
|  |   |                   |             |             |             |                       | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 |  |  |
| A14200                                   | Drive Pile - Bt #3 - Spout Springs - Section 2                                  | 2.00d             | Mar-13-2019 | Mar-16-2019 | 13.00d      | \$46,769.21           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A14180                                   | Drive Pile - Bt #1 - Spout Springs - Section 2                                  | 2.00d             | Mar-13-2019 | Mar-16-2019 | 13.00d      | \$46,769.21           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Substructure                             |   | 39.00d            | Jan-18-2019 | Mar-27-2019 | 13.00d      | \$161,430.43          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A14220                                   | Construct Bt #2 - Spout Springs - Section 2                                     | 6.00d             | Jan-18-2019 | Jan-26-2019 | 50.00d      | \$106,544.09          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A14250                                   | Cure Time - Bt #2 - Spout Springs - Section 2                                   | 7.00d             | Jan-27-2019 | Feb-02-2019 | 73.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A14230                                   | Construct Bt #3 - Spout Springs - Section 2                                     | 3.00d             | Mar-18-2019 | Mar-20-2019 | 13.00d      | \$27,443.17           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A14210                                   | Construct Bt #1 - Spout Springs - Section 2                                     | 3.00d             | Mar-18-2019 | Mar-20-2019 | 13.00d      | \$27,443.17           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A14260                                   | Cure Time - Bt #3 - Spout Springs - Section 2                                   | 7.00d             | Mar-21-2019 | Mar-27-2019 | 20.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A14240                                   | Cure Time - Bt #1 - Spout Springs - Section 2                                   | 7.00d             | Mar-21-2019 | Mar-27-2019 | 20.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Superstructure                           |   | 53.00d            | Mar-21-2019 | May-31-2019 | 14.00d      | \$982,337.66          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A14270                                   | Grade for Crane Access - Spout Springs - Section 2                              | 2.00d             | Mar-21-2019 | Mar-22-2019 | 17.00d      | \$8,751.32            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A14290                                   | Erect PSC Beams - Span 2 - Spout Springs - Section 2                            | 1.00d             | Mar-28-2019 | Mar-28-2019 | 14.00d      | \$180,280.46          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A14280                                   | Erect PSC Beams - Span 1 - Spout Springs - Section 2                            | 1.00d             | Mar-28-2019 | Mar-28-2019 | 14.00d      | \$180,280.46          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A14300                                   | Grade PSC Beams - Spout Springs - Section 2                                     | 2.00d             | Mar-29-2019 | Apr-01-2019 | 14.00d      | \$8,926.21            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A14310                                   | Construct Sub-Deck - Spout Springs - Section 2                                  | 16.00d            | Apr-02-2019 | Apr-22-2019 | 14.00d      | \$110,243.88          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A14320                                   | Construct Bridge Deck - Spout Springs - Section 2                               | 16.00d            | Apr-23-2019 | May-11-2019 | 14.00d      | \$332,902.96          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A14330                                   | Construct Approach Slabs - Spout Springs - Section 2                            | 2.00d             | May-13-2019 | May-14-2019 | 14.00d      | \$65,272.48           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A14340                                   | Construct Bridge Barrier - Spout Springs - Section 2                            | 2.00d             | May-15-2019 | May-16-2019 | 14.00d      | \$23,150.88           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A14350                                   | Remove Overhangs - Spout Springs - Section 2                                    | 4.00d             | May-17-2019 | May-21-2019 | 14.00d      | \$17,852.43           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A14360                                   | Sweep Deck - Spout Springs - Section 2  | 1.00d             | May-22-2019 | May-22-2019 | 14.00d      | \$3,570.49            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A14370                                   | Profileograph Bridge Deck - Spout Springs - Section 2                           | 1.00d             | May-28-2019 | May-28-2019 | 14.00d      | \$1,785.24            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A14380                                   | Groove Bridge Deck - Spout Springs - Section 2                                  | 1.00d             | May-29-2019 | May-29-2019 | 14.00d      | \$13,616.00           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A14390                                   | Seal Joints/ Clean-up - Spout Springs - Section 2                               | 2.00d             | May-30-2019 | May-31-2019 | 14.00d      | \$35,704.85           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Stage 3 - Shift Traffic to Inside        |   | 17.00d            | May-18-2019 | Jun-17-2019 | 55.00d      | \$1,964,589.78        |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| I-85 Northbound                          |   | 10.00d            | May-18-2019 | Jun-06-2019 | 62.00d      | \$982,294.89          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Paving                                   |   | 10.00d            | May-18-2019 | Jun-06-2019 | 62.00d      | \$949,706.70          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A15240                                   | Place 12.5mm SMA Asphaltic Concrete - Inside Shoulder & Lane 1 - NB - Segment 1 | 4.00d             | May-18-2019 | May-22-2019 | 62.00d      | \$418,283.85          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A15230                                   | Place 12.5mm SMA Asphaltic Concrete - Lane 2 & Lane 3 - NB - Segment 1          | 4.00d             | Jun-01-2019 | Jun-06-2019 | 62.00d      | \$531,422.85          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Traffic Control                          |   | 2.00d             | May-28-2019 | May-29-2019 | 62.00d      | \$32,588.19           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A15220                                   | Shift Traffic to New Alignment - NB Segment 1                                   | 2.00d             | May-28-2019 | May-29-2019 | 62.00d      | \$32,588.19           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| I-85 Southbound                          |   | 10.00d            | Jun-03-2019 | Jun-17-2019 | 55.00d      | \$982,294.89          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Paving                                   |   | 10.00d            | Jun-03-2019 | Jun-17-2019 | 55.00d      | \$949,706.70          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A15210                                   | Place 12.5mm SMA Asphaltic Concrete - Inside Shoulder & Lane 1 - SB - Segment 1 | 4.00d             | Jun-03-2019 | Jun-07-2019 | 25.00d      | \$418,283.85          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A15200                                   | Place 12.5mm SMA Asphaltic Concrete - Lane 2 & Lane 3 - SB - Segment 1          | 4.00d             | Jun-13-2019 | Jun-17-2019 | 55.00d      | \$531,422.85          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Traffic Control                          |   | 2.00d             | Jun-08-2019 | Jun-10-2019 | 25.00d      | \$32,588.19           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A15190                                   | Shift Traffic to New Alignment - SB Segment 1                                   | 2.00d             | Jun-08-2019 | Jun-10-2019 | 25.00d      | \$32,588.19           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Stage 4 - Construct ITS & Sound Barriers |   | 251.00d           | Feb-04-2019 | Mar-24-2020 | 74.00d      | \$4,330,313.93        |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Section 1                                |   | 237.00d           | Feb-04-2019 | Mar-02-2020 | 88.00d      | \$1,599,396.30        |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| I-85 Northbound                          |   | 138.00d           | Feb-04-2019 | Sep-04-2019 | 187.00d     | \$918,669.83          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Clearing                                 |   | 11.00d            | Feb-04-2019 | Feb-25-2019 | 64.00d      | \$99,139.48           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A1620                                    | Clear & Grub for SB 4-1 - NB - Section 1  | 7.00d             | Feb-04-2019 | Feb-16-2019 | 64.00d      | \$49,569.74           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A1630                                    | Clear for ITS NB - Section 1  | 4.00d             | Feb-20-2019 | Feb-25-2019 | 64.00d      | \$49,569.74           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Sound Barrier 4-1                        |   | 47.00d            | Jun-19-2019 | Aug-22-2019 | 0.00d       | \$508,011.69          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A1310                                    | Rough Grade for Sound Barrier - Section 1                                       | 6.00d             | Jun-19-2019 | Jun-25-2019 | 0.00d       | \$10,000.00           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A1320                                    | Install Posts SB 4-1 - Posts 1-45 - Section 1                                   | 14.00d            | Jun-26-2019 | Jul-15-2019 | 0.00d       | \$58,711.80           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A1340                                    | Install Panels SB 4-1 - Posts 1-45 - Section 1                                  | 12.00d            | Jul-16-2019 | Jul-30-2019 | 2.00d       | \$136,994.20          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A1330                                    | Install Posts SB 4-1 - Posts 46-85 - Section 1                                  | 14.00d            | Jul-16-2019 | Aug-01-2019 | 0.00d       | \$58,711.80           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A1350                                    | Install Panels SB 4-1 - Posts 46-85 - Section 1                                 | 12.00d            | Aug-02-2019 | Aug-16-2019 | 0.00d       | \$136,994.20          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A1360                                    | Dress & Grass Slopes - SB 4-1 - Section 1                                       | 5.00d             | Aug-17-2019 | Aug-22-2019 | 0.00d       | \$106,599.69          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Guardrail                                |   | 60.00d            | Jun-10-2019 | Sep-04-2019 | 0.00d       | \$77,300.85           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A1270                                    | Remove Existing Guardrail NB - Section 1  | 6.00d             | Jun-10-2019 | Jun-18-2019 | 0.00d       | \$8,058.30            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A1290                                    | Install New Guardrail NB - Section 1  | 7.00d             | Aug-23-2019 | Sep-04-2019 | 0.00d       | \$69,242.55           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| ITS                                      |   | 44.00d            | Feb-26-2019 | May-04-2019 | 270.00d     | \$234,217.81          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Fiber Optic Trunk Line                   |   | 28.00d            | Feb-26-2019 | Apr-11-2019 | 196.00d     | \$132,073.83          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A1530                                    | Install Duct Bank NB - Section 1  | 14.00d            | Feb-26-2019 | Mar-19-2019 | 64.00d      | \$103,734.26          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A1540                                    | Install Pull Boxes NB - Section 1   | 4.00d             | Mar-20-2019 | Mar-26-2019 | 196.00d     | \$7,892.85            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |

Primary Baseline Critical Remaining Work  
Actual Work Baseline Milestone  
Remaining Work Milestone

I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow  
Counties

Data Date: Sep-15-2017



C. W. Matthews  
Contracting Co., Inc.

## Proposal Schedule Cost Loaded

Submitted: August 25, 2017  
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| Activity ID            | Activity Name  | Original Duration | Start       | Finish      | Total Float | Budgeted Expense Cost | 2018 |    |    |    |    |    |    |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |  |  |
|------------------------|--|-------------------|-------------|-------------|-------------|-----------------------|------|----|----|----|----|----|----|----|------|----|----|----|------|----|----|----|------|----|--|--|
|                        |  |                   |             |             |             |                       | Q3   | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 |  |  |
| A1550                  | Install & Splice Fiber Optic Cable NB - Section 1        | 10.00d            | Mar-27-2019 | Apr-11-2019 | 196.00d     | \$20,446.72           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Electrical             |  | 24.00d            | Feb-26-2019 | Apr-05-2019 | 290.00d     | \$94,756.22           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A1580                  | Install Power Service Points NB - Section 1              | 2.00d             | Feb-26-2019 | Feb-27-2019 | 312.00d     | \$13,551.02           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A1560                  | Install Electrical Conduit NB - Section 1                | 14.00d            | Feb-26-2019 | Mar-19-2019 | 290.00d     | \$40,602.60           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A1570                  | Install Electrical Conductors & Equipment NB - Section 1 | 10.00d            | Mar-20-2019 | Apr-05-2019 | 290.00d     | \$40,602.60           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Structures             |  | 1.00d             | May-02-2019 | May-02-2019 | 270.00d     | \$7,387.76            |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A1590                  | Install ITS Structures NB (1) - Section 1                | 1.00d             | May-02-2019 | May-02-2019 | 270.00d     | \$7,387.76            |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Cabinets & Devices     |  | 2.00d             | May-03-2019 | May-04-2019 | 270.00d     | \$0.00                |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A1600                  | Install ITS Cabinets NB - Section 1                      | 1.00d             | May-03-2019 | May-03-2019 | 270.00d     | \$0.00                |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A1610                  | Install ITS Devices NB - Section 1                       | 1.00d             | May-04-2019 | May-04-2019 | 270.00d     | \$0.00                |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| I-85 Southbound        |  | 198.00d           | Apr-12-2019 | Mar-02-2020 | 88.00d      | \$680,726.47          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Clearing               |  | 4.00d             | Apr-12-2019 | Apr-16-2019 | 88.00d      | \$49,569.74           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A1730                  | Clear for ITS & Signs SB - Section 1                     | 4.00d             | Apr-12-2019 | Apr-16-2019 | 88.00d      | \$49,569.74           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Guardrail              |  | 13.00d            | Jun-24-2019 | Jul-11-2019 | 37.00d      | \$77,300.85           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A1280                  | Remove Existing Guardrail SB - Section 1                 | 6.00d             | Jun-24-2019 | Jul-01-2019 | 37.00d      | \$8,058.30            |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A1300                  | Install New Guardrail SB - Section 1                     | 7.00d             | Jul-02-2019 | Jul-11-2019 | 37.00d      | \$69,242.55           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Signs                  |  | 7.00d             | Apr-17-2019 | Apr-25-2019 | 88.00d      | \$340,576.85          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A1740                  | Construct Shoulder Sign Foundations (2) SB - Section 1   | 4.00d             | Apr-17-2019 | Apr-22-2019 | 88.00d      | \$85,144.21           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A1750                  | Install Overhead Sign Structures (3) SB - Section 1      | 3.00d             | Apr-23-2019 | Apr-25-2019 | 88.00d      | \$259,432.64          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| ITS                    |  | 194.00d           | Apr-17-2019 | Mar-02-2020 | 88.00d      | \$213,279.03          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Fiber Optic Trunk Line |  | 28.00d            | Jan-08-2020 | Mar-02-2020 | 88.00d      | \$132,073.83          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A1640                  | Install Duct Bank SB - Section 1                         | 14.00d            | Jan-08-2020 | Feb-03-2020 | 32.00d      | \$103,734.26          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A1650                  | Install Pull Boxes SB - Section 1                        | 4.00d             | Feb-05-2020 | Feb-13-2020 | 88.00d      | \$7,892.85            |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A1660                  | Install & Splice Fiber Optic Cable SB - Section 1        | 10.00d            | Feb-14-2020 | Mar-02-2020 | 88.00d      | \$20,446.72           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Electrical             |  | 24.00d            | Apr-17-2019 | May-18-2019 | 258.00d     | \$81,205.20           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A1690                  | Install Power Service Points SB - Section 1              | 2.00d             | Apr-17-2019 | Apr-19-2019 | 280.00d     | \$0.00                |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A1670                  | Install Electrical Conduit SB - Section 1                | 14.00d            | Apr-17-2019 | May-07-2019 | 258.00d     | \$40,602.60           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A1680                  | Install Electrical Conductors & Equipment SB - Section 1 | 10.00d            | May-08-2019 | May-18-2019 | 258.00d     | \$40,602.60           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Section 2              |  | 240.00d           | Feb-26-2019 | Mar-24-2020 | 74.00d      | \$2,730,917.63        |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| I-85 Northbound        |  | 80.00d            | Feb-26-2019 | Jun-26-2019 | 234.00d     | \$373,267.71          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Clearing               |  | 4.00d             | Feb-26-2019 | Mar-04-2019 | 74.00d      | \$49,569.74           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A2500                  | Clear for ITS NB - Section 2                             | 4.00d             | Feb-26-2019 | Mar-04-2019 | 74.00d      | \$49,569.74           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Guardrail              |  | 13.00d            | Jun-10-2019 | Jun-26-2019 | 47.00d      | \$77,300.85           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A2300                  | Remove Existing Guardrail NB - Section 2                 | 6.00d             | Jun-10-2019 | Jun-18-2019 | 47.00d      | \$8,058.30            |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A2320                  | Install New Guardrail NB - Section 2                     | 7.00d             | Jun-19-2019 | Jun-26-2019 | 47.00d      | \$69,242.55           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| ITS                    |  | 40.00d            | Mar-05-2019 | May-04-2019 | 270.00d     | \$246,397.12          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Fiber Optic Trunk Line |  | 28.00d            | Mar-20-2019 | May-02-2019 | 192.00d     | \$135,456.48          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A2400                  | Install Duct Bank NB - Section 2                         | 14.00d            | Mar-20-2019 | Apr-11-2019 | 64.00d      | \$103,734.26          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A2410                  | Install Pull Boxes NB - Section 2                        | 4.00d             | Apr-12-2019 | Apr-16-2019 | 192.00d     | \$11,275.50           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A2420                  | Install & Splice Fiber Optic Cable NB - Section 2        | 10.00d            | Apr-17-2019 | May-02-2019 | 192.00d     | \$20,446.72           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Electrical             |  | 24.00d            | Mar-05-2019 | Apr-11-2019 | 286.00d     | \$81,205.20           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A2450                  | Install Power Service Points NB - Section 2              | 2.00d             | Mar-05-2019 | Mar-06-2019 | 308.00d     | \$0.00                |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A2430                  | Install Electrical Conduit NB - Section 2                | 14.00d            | Mar-05-2019 | Mar-26-2019 | 286.00d     | \$40,602.60           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A2440                  | Install Electrical Conductors & Equipment NB - Section 2 | 10.00d            | Mar-27-2019 | Apr-11-2019 | 286.00d     | \$40,602.60           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Structures             |  | 1.00d             | May-02-2019 | May-02-2019 | 270.00d     | \$14,775.52           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A2460                  | Install ITS Structures NB (2) - Section 2                | 1.00d             | May-02-2019 | May-02-2019 | 270.00d     | \$14,775.52           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Cabinets & Devices     |  | 2.00d             | May-03-2019 | May-04-2019 | 270.00d     | \$14,959.92           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A2470                  | Install ITS Cabinets NB - Section 2                      | 1.00d             | May-03-2019 | May-03-2019 | 270.00d     | \$0.00                |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A2480                  | Install ITS Devices NB - Section 2                       | 1.00d             | May-04-2019 | May-04-2019 | 270.00d     | \$14,959.92           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| I-85 Southbound        |  | 223.00d           | Mar-26-2019 | Mar-24-2020 | 74.00d      | \$2,357,649.92        |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Clearing               |  | 11.00d            | Mar-26-2019 | Apr-11-2019 | 88.00d      | \$99,139.48           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A2490                  | Clear & Grub for SB 4-2 - SB - Section 2                 | 7.00d             | Mar-26-2019 | Apr-05-2019 | 49.00d      | \$49,569.74           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A2570                  | Clear for ITS & Signs SB - Section 2                     | 4.00d             | Apr-06-2019 | Apr-11-2019 | 88.00d      | \$49,569.74           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Sound Barrier 4-2      |  | 74.00d            | Apr-06-2019 | Jul-25-2019 | 22.00d      | \$1,806,953.87        |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A2340                  | Rough Grade for Sound Barrier - Section 2                | 6.00d             | Apr-06-2019 | Apr-13-2019 | 49.00d      | \$5,000.00            |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A2360                  | Install Posts SB 4-2 - Posts 40-80 - Section 2           | 14.00d            | Apr-15-2019 | May-01-2019 | 55.00d      | \$167,656.10          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |

Primary Baseline Critical Remaining Work  
Actual Work Baseline Milestone  
Remaining Work Milestone

I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow  
Counties

Data Date: Sep-15-2017



C. W. Matthews  
Contracting Co., Inc.

## Proposal Schedule Cost Loaded

Submitted: August 25, 2017  
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| Activity ID                         | Activity Name  | Original Duration | Start       | Finish      | Total Float | Budgeted Expense Cost |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
|-------------------------------------|--|-------------------|-------------|-------------|-------------|-----------------------|------|----|----|----|------|----|----|----|------|----|----|----|------|----|--|--|
|                                     |  |                   |             |             |             |                       | 2018 |    |    |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |  |  |
|                                     |  |                   |             |             |             |                       | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 |  |  |
| A2900                               | Install Posts SB 4-2 - Posts 80-120 - Section 2                                      | 14.00d            | May-02-2019 | May-17-2019 | 55.00d      | \$167,656.10          |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Install Posts SB 4-2 - Posts 80-120 - Section 2                                      |  |
| A2380                               | Install Panels SB 4-2 - Posts 40-80 - Section 2                                      | 12.00d            | May-02-2019 | May-15-2019 | 69.00d      | \$385,609.03          |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Install Panels SB 4-2 - Posts 40-80 - Section 2                                      |  |
| A2910                               | Install Panels SB 4-2 - Posts 80-120 - Section 2                                     | 12.00d            | May-18-2019 | Jun-05-2019 | 55.00d      | \$402,374.64          |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Install Panels SB 4-2 - Posts 80-120 - Section 2                                     |  |
| A2350                               | Install Posts SB 4-2 - Posts 1-40 - Section 2  | 14.00d            | Jun-13-2019 | Jun-28-2019 | 25.00d      | \$167,656.10          |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Install Posts SB 4-2 - Posts 1-40 - Section 2  |  |
| A2370                               | Install Panels SB 4-2 - Posts 1-40 - Section 2                                       | 12.00d            | Jun-29-2019 | Jul-16-2019 | 25.00d      | \$385,609.03          |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Install Panels SB 4-2 - Posts 1-40 - Section 2                                       |  |
| A2390                               | Dress & Grass Slopes - SB 4-2 - Section 2  | 5.00d             | Jul-18-2019 | Jul-25-2019 | 22.00d      | \$125,392.87          |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Dress & Grass Slopes - SB 4-2 - Section 2  |  |
| Guardrail                           |  | 28.00d            | Jun-24-2019 | Aug-02-2019 | 22.00d      | \$77,300.85           |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Aug-02-2019; Guardrail   |  |
| A2310                               | Remove Existing Guardrail SB - Section 2   | 6.00d             | Jun-24-2019 | Jul-01-2019 | 37.00d      | \$8,058.30            |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Remove Existing Guardrail SB - Section 2   |  |
| A2330                               | Install New Guardrail SB - Section 2   | 7.00d             | Jul-26-2019 | Aug-02-2019 | 22.00d      | \$69,242.55           |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Install New Guardrail SB - Section 2   |  |
| Signs                               |  | 3.00d             | Apr-12-2019 | Apr-15-2019 | 96.00d      | \$104,872.92          |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Apr-15-2019; Signs   |  |
| A2580                               | Construct Shoulder Sign Foundations (1) SB - Section 2                               | 2.00d             | Apr-12-2019 | Apr-13-2019 | 96.00d      | \$18,431.10           |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Construct Shoulder Sign Foundations (1) SB - Section 2                               |  |
| A2590                               | Install Overhead Sign Structures (2) SB - Section 2                                  | 1.00d             | Apr-15-2019 | Apr-15-2019 | 96.00d      | \$86,441.82           |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Install Overhead Sign Structures (2) SB - Section 2                                  |  |
| ITS                                 |  | 212.00d           | Apr-12-2019 | Mar-24-2020 | 74.00d      | \$269,382.80          |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Mar-24-2020; ITS   |  |
| Fiber Optic Trunk Line              |  | 28.00d            | Feb-05-2020 | Mar-24-2020 | 74.00d      | \$135,456.48          |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Mar-24-2020; Fiber Optic Trunk Line  |  |
| A2510                               | Install Duct Bank SB - Section 2   | 14.00d            | Feb-05-2020 | Mar-02-2020 | 32.00d      | \$103,734.26          |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Install Duct Bank SB - Section 2   |  |
| A2520                               | Install Pull Boxes SB - Section 2  | 4.00d             | Mar-03-2020 | Mar-09-2020 | 74.00d      | \$11,275.50           |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Install Pull Boxes SB - Section 2  |  |
| A2530                               | Install & Splice Fiber Optic Cable SB - Section 2                                    | 10.00d            | Mar-10-2020 | Mar-24-2020 | 74.00d      | \$20,446.72           |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Install & Splice Fiber Optic Cable SB - Section 2                                    |  |
| Electrical                          |  | 24.00d            | Apr-12-2019 | May-14-2019 | 262.00d     | \$81,205.20           |      |    |    |    |      |    |    |    |      |    |    |    |      |    | May-14-2019; Electrical  |  |
| A2560                               | Install Power Service Points SB - Section 2  | 2.00d             | Apr-12-2019 | Apr-13-2019 | 284.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Install Power Service Points SB - Section 2  |  |
| A2540                               | Install Electrical Conduit SB - Section 2  | 14.00d            | Apr-12-2019 | May-02-2019 | 262.00d     | \$40,602.60           |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Install Electrical Conduit SB - Section 2  |  |
| A2550                               | Install Electrical Conductors & Equipment SB - Section 2                             | 10.00d            | May-03-2019 | May-14-2019 | 262.00d     | \$40,602.60           |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Install Electrical Conductors & Equipment SB - Section 2                             |  |
| Structures                          |  | 2.00d             | May-02-2019 | May-03-2019 | 269.00d     | \$14,775.52           |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Install ITS Structures SB (2) - Section 2  |  |
| A3120                               | Install ITS Structures SB (2) - Section 2  | 2.00d             | May-02-2019 | May-03-2019 | 269.00d     | \$14,775.52           |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Install ITS Structures SB (2) - Section 2  |  |
| Cabinets & Devices                  |  | 2.00d             | May-04-2019 | May-06-2019 | 269.00d     | \$37,945.60           |      |    |    |    |      |    |    |    |      |    |    |    |      |    | May-06-2019; Cabinets & Devices  |  |
| A3130                               | Install ITS Cabinets SB - Section 2  | 1.00d             | May-04-2019 | May-04-2019 | 269.00d     | \$22,985.68           |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Install ITS Cabinets SB - Section 2  |  |
| A3140                               | Install ITS Devices SB - Section 2   | 1.00d             | May-06-2019 | May-06-2019 | 269.00d     | \$14,959.92           |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Install ITS Devices SB - Section 2   |  |
| Stage 5 - Final Paving              |  | 52.00d            | Aug-03-2019 | Oct-15-2019 | 0.00d       | \$525,701.84          |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Oct-15-2019; Stage 5 - Final Paving  |  |
| I-85 Northbound                     |  | 30.00d            | Sep-05-2019 | Oct-15-2019 | 0.00d       | \$262,850.92          |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Oct-15-2019; I-85 Northbound   |  |
| Paving                              |  | 3.00d             | Sep-05-2019 | Sep-11-2019 | 0.00d       | \$223,181.03          |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Sep-11-2019; Paving  |  |
| A15300                              | Place OGFC Asphaltic Concrete NB - Segment 1   | 3.00d             | Sep-05-2019 | Sep-11-2019 | 0.00d       | \$223,181.03          |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Place OGFC Asphaltic Concrete NB - Segment 1   |  |
| Pavement Marking                    |  | 25.00d            | Sep-12-2019 | Oct-15-2019 | 0.00d       | \$39,669.89           |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Oct-15-2019; Pavement Marking  |  |
| A15280                              | Asphalt Cure - 30 Days - NB - Segment 1  | 30.00d            | Sep-12-2019 | Oct-11-2019 | 0.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Asphalt Cure - 30 Days - NB - Segment 1  |  |
| A15270                              | Install Final Pavement Markings NB - Segment 1                                       | 3.00d             | Oct-12-2019 | Oct-15-2019 | 0.00d       | \$39,669.89           |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Install Final Pavement Markings NB - Segment 1                                       |  |
| I-85 Southbound                     |  | 27.00d            | Aug-03-2019 | Sep-11-2019 | 25.00d      | \$262,850.92          |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Sep-11-2019; I-85 Southbound   |  |
| Paving                              |  | 3.00d             | Aug-03-2019 | Aug-08-2019 | 23.00d      | \$223,181.03          |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Aug-08-2019; Paving  |  |
| A15290                              | Place OGFC Asphaltic Concrete SB - Segment 1   | 3.00d             | Aug-03-2019 | Aug-08-2019 | 23.00d      | \$223,181.03          |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Place OGFC Asphaltic Concrete SB - Segment 1   |  |
| Pavement Marking                    |  | 24.00d            | Aug-09-2019 | Sep-11-2019 | 25.00d      | \$39,669.89           |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Sep-11-2019; Pavement Marking  |  |
| A15260                              | Asphalt Cure - 30 Days - SB - Segment 1  | 30.00d            | Aug-09-2019 | Sep-07-2019 | 34.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Asphalt Cure - 30 Days - SB - Segment 1  |  |
| A15250                              | Install Final Pavement Markings SB - Segment 1                                       | 3.00d             | Sep-09-2019 | Sep-11-2019 | 25.00d      | \$39,669.89           |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Install Final Pavement Markings SB - Segment 1                                       |  |
| Segment Turnover                    |  | 17.00d            | Oct-17-2019 | Nov-11-2019 | 0.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Nov-11-2019; Segment Turnover  |  |
| A15330                              | Prepare/Submit Written Notice to GDOT of Segment 1 Turnover                          | 2.00d             | Oct-17-2019 | Oct-18-2019 | 0.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Prepare/Submit Written Notice to GDOT of Segment 1 Turnover                          |  |
| A15340                              | GDOT Review Segment 1 for Opening to Traffic   | 5.00d             | Oct-19-2019 | Oct-25-2019 | 0.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | GDOT Review Segment 1 for Opening to Traffic   |  |
| A15350                              | Address Corrective Items for Segment 1 Turnover                                      | 10.00d            | Oct-26-2019 | Nov-11-2019 | 0.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Address Corrective Items for Segment 1 Turnover                                      |  |
| Segment 2 - Spout Springs to 725+60 |  | 415.00d           | Jul-12-2018 | May-26-2020 | 32.00d      | \$37,977,194.62       |      |    |    |    |      |    |    |    |      |    |    |    |      |    | May-26-2020; Segment 2 - Spout Springs to 725+60                                     |  |
| Stage 1 - Shift Traffic to Outside  |  | 51.00d            | Jul-12-2018 | Sep-24-2018 | 50.00d      | \$2,588,035.29        |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Sep-24-2018; Stage 1 - Shift Traffic to Outside                                      |  |
| I-85 NB Outside Shoulder            |  | 45.00d            | Jul-12-2018 | Sep-15-2018 | 44.00d      | \$1,270,924.33        |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Sep-15-2018; I-85 NB Outside Shoulder  |  |
| Paving                              |  | 45.00d            | Jul-12-2018 | Sep-15-2018 | 44.00d      | \$1,270,924.33        |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Sep-15-2018; Paving  |  |
| A1370                               | MII Existing Lanes 3" - NB - Segment 2   | 12.00d            | Jul-12-2018 | Jul-30-2018 | 77.00d      | \$295,672.15          |      |    |    |    |      |    |    |    |      |    |    |    |      |    | MII Existing Lanes 3" - NB - Segment 2   |  |
| A1420                               | Place Asphaltic Leveling for Cross-Slope Correction - Section 3 & 4 - NB - Segment 2 | 15.00d            | Aug-03-2018 | Aug-22-2018 | 6.00d       | \$505,202.88          |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Place Asphaltic Leveling for Cross-Slope Correction - Section 3 & 4 - NB - Segment 2 |  |
| A1430                               | Place Asphaltic Leveling for Cross-Slope Correction - Section 5 & 6 - NB - Segment 2 | 15.00d            | Aug-25-2018 | Sep-15-2018 | 6.00d       | \$470,049.30          |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Place Asphaltic Leveling for Cross-Slope Correction - Section 5 & 6 - NB - Segment 2 |  |
| I-85 SB Outside Shoulder            |  | 39.00d            | Jul-31-2018 | Sep-24-2018 | 50.00d      | \$1,317,110.96        |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Sep-24-2018; I-85 SB Outside Shoulder  |  |
| Paving                              |  | 39.00d            | Jul-31-2018 | Sep-24-2018 | 50.00d      | \$1,317,110.96        |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Sep-24-2018; Paving  |  |
| A1380                               | MII Existing Lanes 3" - SB - Segment 2   | 12.00d            | Jul-31-2018 | Aug-15-2018 | 77.00d      | \$295,672.15          |      |    |    |    |      |    |    |    |      |    |    |    |      |    | MII Existing Lanes 3" - SB - Segment 2   |  |
| A13660                              | Place Asphaltic Leveling for Cross-Slope Correction - Section 3 & 4 - SB - Segment 2 | 15.00d            | Aug-13-2018 | Aug-31-2018 | 0.00d       | \$600,924.10          |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Place Asphaltic Leveling for Cross-Slope Correction - Section 3 & 4 - SB - Segment 2 |  |
| A13670                              | Place Asphaltic Leveling for Cross-Slope Correction - Section 5 & 6 - SB - Segment 2 | 15.00d            | Sep-05-2018 | Sep-24-2018 | 0.00d       | \$420,514.71          |      |    |    |    |      |    |    |    |      |    |    |    |      |    | Place Asphaltic Leveling for Cross-Slope Correction - Section 5 & 6 - SB - Segment 2 |  |
| Stage 2 - Construct Median          |  | 352.00d           | Sep-19-2018 | May-04-2020 | 48.00d      | \$17,641,772.48       |      |    |    |    |      |    |    |    |      |    |    |    |      |    | May-04-2020; Stage 2 - Construct Median  |  |

Primary Baseline Critical Remaining Work  
Actual Work Baseline Milestone  
Remaining Work Milestone

## I-85 Widening, Design-Build PI No. 110610, Gwinnett & Barrow Counties

Data Date: Sep-15-2017



C. W. Matthews  
Contracting Co., Inc.

## Proposal Schedule Cost Loaded

Submitted: August 25, 2017  
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| Activity ID                  | Activity Name                                       | Original Duration | Start       | Finish      | Total Float | Budgeted Expense Cost |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|------------------------------|---|-------------------|-------------|-------------|-------------|-----------------------|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|----|----|
|                              |   |                   |             |             |             |                       | 2018 |    |    |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |    |    |    |    |
|                              |   |                   |             |             |             |                       | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3 | Q4 |
| Section 3 - 518+00 to 575+50 |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Traffic Control              |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A2250                        | Install Temporary Barrier SB - Section 3            | 1.00d             | Sep-19-2018 | Sep-19-2018 | 4.00d       | \$271,685.12          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A2240                        | Install Temporary Barrier NB - Section 3            | 1.00d             | Sep-19-2018 | Sep-19-2018 | 4.00d       | \$135,842.56          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Grading                      |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Rough Grade                  |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A2010                        | Remove Cable Barrier & Mow Strip - Section 3        | 4.00d             | Sep-20-2018 | Sep-25-2018 | 4.00d       | \$20,014.14           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A2020                        | Remove Top Soil - Section 3                         | 8.00d             | Sep-26-2018 | Oct-04-2018 | 4.00d       | \$118,735.77          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A2030                        | Rough Grade to Subgrade NB - Section 3              | 10.00d            | Oct-05-2018 | Oct-19-2018 | 4.00d       | \$118,735.77          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A2040                        | Rough Grade to Subgrade SB - Section 3              | 10.00d            | Oct-20-2018 | Nov-03-2018 | 4.00d       | \$118,735.77          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Fine Grade                   |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A2050                        | Fine Grade Subgrade NB - Section 3                  | 7.00d             | Oct-20-2018 | Oct-29-2018 | 14.00d      | \$31,466.88           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A2060                        | Fine Grade Subgrade SB - Section 3                  | 7.00d             | Nov-05-2018 | Nov-16-2018 | 14.00d      | \$31,466.88           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Drainage                     |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Storm Drain Pipe             |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A2070                        | Install C-1 to C-7 - Section 3                      | 4.00d             | Oct-05-2018 | Oct-11-2018 | 18.00d      | \$46,033.64           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Drainage Structures          |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A2080                        | Construct C-Series Drop Inlets - Section 3          | 2.00d             | Oct-12-2018 | Oct-13-2018 | 18.00d      | \$57,615.93           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Signs                        |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Foundations                  |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A2090                        | Construct Median Sign Foundations (1) - Section 3   | 2.00d             | Oct-05-2018 | Oct-06-2018 | 22.00d      | \$21,946.22           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Structures                   |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A2890                        | Install Overhead Sign Structures (1) SB - Section 3 | 2.00d             | Jan-16-2019 | Jan-17-2019 | 165.00d     | \$43,135.77           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Barrier Wall                 |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A2110                        | Pour Barrier Wall Footings - Section 3              | 4.00d             | Nov-05-2018 | Nov-10-2018 | 4.00d       | \$108,651.60          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A2100                        | Fine Grade Barrier Wall Pad - Section 3             | 3.00d             | Nov-05-2018 | Nov-09-2018 | 4.00d       | \$10,865.16           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A2120                        | Slip Barrier Wall - Section 3                       | 16.00d            | Nov-12-2018 | Dec-10-2018 | 4.00d       | \$423,741.24          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A2130                        | Pour Barrier Wall Sign Transitions - Section 3      | 2.00d             | Dec-13-2018 | Dec-14-2018 | 11.00d      | \$121,394.35          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Base & Paving                |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Graded Aggr. Base            |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A2140                        | Place GAB NB - Section 3                            | 37.00d            | Oct-30-2018 | Jan-18-2019 | 4.00d       | \$978,002.90          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A2150                        | Place GAB SB - Section 3                            | 10.00d            | Oct-30-2018 | Nov-16-2018 | 14.00d      | \$459,718.78          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A2160                        | Fine Grade GAB NB - Section 3                       | 7.00d             | Dec-13-2018 | Jan-07-2019 | 4.00d       | \$29,282.67           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A2170                        | Fine Grade GAB SB - Section 3                       | 7.00d             | Jan-08-2019 | Jan-18-2019 | 4.00d       | \$29,282.67           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Asphalt                      |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A2180                        | Place 25mm Asphaltic Concrete NB - Section 3        | 5.00d             | Jan-08-2019 | Jan-16-2019 | 6.00d       | \$708,007.11          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A2200                        | Place 19mm Asphaltic Concrete NB - Section 3        | 2.00d             | Jan-17-2019 | Jan-18-2019 | 9.00d       | \$198,718.05          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A2190                        | Place 25mm Asphaltic Concrete SB - Section 3        | 5.00d             | Jan-19-2019 | Jan-28-2019 | 4.00d       | \$708,007.11          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A2210                        | Place 19mm Asphaltic Concrete SB - Section 3        | 2.00d             | Jan-31-2019 | Feb-01-2019 | 4.00d       | \$198,718.05          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Section 4 - 575+50 to 620+00 |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Traffic Control              |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A4340                        | Install Temporary Barrier NB - Section 4            | 1.00d             | Jan-28-2019 | Jan-28-2019 | 7.00d       | \$25,324.44           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A4350                        | Install Temporary Barrier SB - Section 4            | 1.00d             | Feb-13-2019 | Feb-13-2019 | 0.00d       | \$25,324.44           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Grading                      |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Rough Grade                  |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A4110                        | Remove Cable Barrier & Mow Strip - Section 4        | 4.00d             | Feb-14-2019 | Apr-06-2019 | 0.00d       | \$376,221.46          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A4120                        | Remove Top Soil - Section 4                         | 8.00d             | Feb-21-2019 | Mar-05-2019 | 0.00d       | \$118,735.77          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A4130                        | Rough Grade to Subgrade NB - Section 4              | 10.00d            | Mar-06-2019 | Mar-20-2019 | 0.00d       | \$118,735.77          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A4140                        | Rough Grade to Subgrade SB - Section 4              | 10.00d            | Mar-22-2019 | Apr-06-2019 | 0.00d       | \$118,735.77          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Fine Grade                   |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A4150                        | Fine Grade Subgrade NB - Section 4                  | 7.00d             | Mar-22-2019 | Apr-16-2019 | 21.00d      | \$62,933.77           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A4160                        | Fine Grade Subgrade SB - Section 4                  | 7.00d             | Apr-02-2019 | Apr-16-2019 | 13.00d      | \$31,466.88           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Drainage                     |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Storm Drain Pipe             |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A4170                        | Install D-1 to D-3 - Section 4                      | 4.00d             | Mar-06-2019 | Mar-12-2019 | 17.00d      | \$23,016.82           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Drainage Structures          |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|                              |   | 2.00d             | Mar-13-2019 | Mar-14-2019 | 17.00d      | \$28,807.97           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |

Primary Baseline Critical Remaining Work  
Actual Work Baseline Milestone  
Remaining Work Milestone

I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow  
Counties

Data Date: Sep-15-2017

[illegible]

 Primary Baseline      Critical Remaining Work  
 Actual Work      Baseline Milestone  
 Remaining Work      Milestone

**I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow  
Counties**

Data Date: Sep-15-2017



C. W. Matthews  
Contracting Co., Inc.

## Proposal Schedule Cost Loaded

Submitted: August 25, 2017  
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| Activity ID | Activity Name   | Original Duration | Start       | Finish      | Total Float | Budgeted Expense Cost |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|-------------|---|-------------------|-------------|-------------|-------------|-----------------------|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|----|----|
|             |   |                   |             |             |             |                       | 2018 |    |    |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |    |    |    |    |
|             |   |                   |             |             |             |                       | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3 | Q4 |
| A3890       | Rough Grade to Subgrade SB - Section 5                    | 10.00d            | Oct-26-2018 | Nov-10-2018 | 0.00d       | \$118,735.77          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | Fine Grade  | 17.00d            | Oct-26-2018 | Nov-28-2018 | 10.00d      | \$62,933.77           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A3900       | Fine Grade Subgrade NB - Section 5                        | 7.00d             | Oct-26-2018 | Nov-05-2018 | 10.00d      | \$31,466.88           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A3910       | Fine Grade Subgrade SB - Section 5                        | 7.00d             | Nov-12-2018 | Nov-28-2018 | 10.00d      | \$31,466.88           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | Drainage  | 6.00d             | Oct-12-2018 | Oct-19-2018 | 14.00d      | \$103,649.57          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | Storm Drain Pipe  | 4.00d             | Oct-12-2018 | Oct-16-2018 | 14.00d      | \$46,033.64           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A3920       | Install D-3 to D-8 - Section 5                            | 4.00d             | Oct-12-2018 | Oct-16-2018 | 14.00d      | \$46,033.64           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | Drainage Structures                                       | 2.00d             | Oct-18-2018 | Oct-19-2018 | 14.00d      | \$57,615.93           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A3930       | Construct D-Series Drop Inlets - Section 5                | 2.00d             | Oct-18-2018 | Oct-19-2018 | 14.00d      | \$57,615.93           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | Barrier Wall  | 20.00d            | Nov-12-2018 | Dec-19-2018 | 0.00d       | \$1,728,969.60        |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A3960       | Pour Barrier Wall Footings - Section 5                    | 4.00d             | Nov-12-2018 | Nov-20-2018 | 0.00d       | \$345,793.92          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A3950       | Fine Grade Barrier Wall Pad - Section 5                   | 3.00d             | Nov-12-2018 | Nov-16-2018 | 0.00d       | \$34,579.39           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A3970       | Slip Barrier Wall - Section 5                             | 16.00d            | Nov-21-2018 | Dec-19-2018 | 0.00d       | \$1,348,596.29        |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | Base & Paving   | 44.00d            | Nov-06-2018 | Feb-08-2019 | 0.00d       | \$2,443,738.56        |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | Graded Aggr. Base   | 37.00d            | Nov-06-2018 | Jan-26-2019 | 0.00d       | \$852,705.70          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A3990       | Place GAB NB - Section 5                                  | 10.00d            | Nov-06-2018 | Nov-28-2018 | 10.00d      | \$400,821.74          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A4000       | Place GAB SB - Section 5                                  | 10.00d            | Nov-29-2018 | Dec-13-2018 | 10.00d      | \$400,821.74          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A4010       | Fine Grade GAB NB - Section 5                             | 7.00d             | Dec-20-2018 | Jan-11-2019 | 0.00d       | \$25,531.11           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A4020       | Fine Grade GAB SB - Section 5                             | 7.00d             | Jan-16-2019 | Jan-26-2019 | 0.00d       | \$25,531.11           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | Asphalt   | 14.00d            | Jan-16-2019 | Feb-08-2019 | 0.00d       | \$1,591,032.86        |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A4030       | Place 25mm Asphaltic Concrete NB - Section 5              | 5.00d             | Jan-16-2019 | Jan-21-2019 | 2.00d       | \$618,953.63          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A4050       | Place 19mm Asphaltic Concrete NB - Section 5              | 2.00d             | Jan-23-2019 | Jan-26-2019 | 5.00d       | \$176,562.80          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A4040       | Place 25mm Asphaltic Concrete SB - Section 5              | 5.00d             | Jan-28-2019 | Feb-04-2019 | 0.00d       | \$618,953.63          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A4060       | Place 19mm Asphaltic Concrete SB - Section 5              | 2.00d             | Feb-06-2019 | Feb-08-2019 | 0.00d       | \$176,562.80          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | Section 6 - 672+80 to 725+60                              | 84.00d            | Jan-28-2019 | Jun-13-2019 | 0.00d       | \$3,693,654.81        |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | Traffic Control   | 8.00d             | Jan-28-2019 | Feb-13-2019 | 0.00d       | \$50,648.88           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A4720       | Install Temporary Barrier NB - Section 6                  | 1.00d             | Jan-28-2019 | Jan-28-2019 | 7.00d       | \$25,324.44           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A4730       | Install Temporary Barrier SB - Section 6                  | 1.00d             | Feb-13-2019 | Feb-13-2019 | 0.00d       | \$25,324.44           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | Grading   | 49.00d            | Feb-14-2019 | May-02-2019 | 3.00d       | \$439,155.23          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | Rough Grade   | 28.00d            | Feb-14-2019 | Apr-01-2019 | 1.00d       | \$376,221.46          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A4490       | Remove Cable Barrier & Mow Strip - Section 6              | 4.00d             | Feb-14-2019 | Feb-20-2019 | 0.00d       | \$20,014.14           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A4500       | Remove Top Soil - Section 6                               | 8.00d             | Feb-21-2019 | Mar-05-2019 | 0.00d       | \$118,735.77          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A4510       | Rough Grade to Subgrade NB - Section 6                    | 8.00d             | Mar-06-2019 | Mar-18-2019 | 1.00d       | \$118,735.77          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A4520       | Rough Grade to Subgrade SB - Section 6                    | 8.00d             | Mar-19-2019 | Apr-01-2019 | 1.00d       | \$118,735.77          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | Fine Grade  | 14.00d            | Apr-12-2019 | May-02-2019 | 3.00d       | \$62,933.77           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A4530       | Fine Grade Subgrade NB - Section 6                        | 7.00d             | Apr-12-2019 | Apr-20-2019 | 0.00d       | \$31,466.88           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A4540       | Fine Grade Subgrade SB - Section 6                        | 7.00d             | Apr-22-2019 | May-02-2019 | 3.00d       | \$31,466.88           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | Drainage  | 23.00d            | Mar-06-2019 | Apr-11-2019 | 0.00d       | \$103,649.57          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | Storm Drain Pipe  | 17.00d            | Mar-06-2019 | Apr-02-2019 | 0.00d       | \$46,033.64           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A4550       | Install E-1 to E-11 - Section 6                           | 17.00d            | Mar-06-2019 | Apr-02-2019 | 0.00d       | \$46,033.64           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | Drainage Structures                                       | 6.00d             | Apr-04-2019 | Apr-11-2019 | 0.00d       | \$57,615.93           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A4560       | Construct E-Series Drop Inlets - Section 6                | 6.00d             | Apr-04-2019 | Apr-11-2019 | 0.00d       | \$57,615.93           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | Barrier Wall  | 29.00d            | Apr-02-2019 | May-11-2019 | 7.00d       | \$647,446.95          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A4580       | Fine Grade Barrier Wall Pad - Section 6                   | 3.00d             | Apr-02-2019 | Apr-05-2019 | 1.00d       | \$9,796.80            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A4590       | Pour Barrier Wall Footings - Section 6                    | 4.00d             | Apr-06-2019 | Apr-11-2019 | 1.00d       | \$97,968.00           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A4600       | Slip Barrier Wall - Section 6                             | 16.00d            | Apr-12-2019 | May-04-2019 | 1.00d       | \$382,075.20          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A47490      | Construct Pad & Install Emergency Access Gate - Section 6 | 6.00d             | May-06-2019 | May-11-2019 | 7.00d       | \$157,606.95          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | Base & Paving   | 34.00d            | Apr-22-2019 | Jun-13-2019 | 0.00d       | \$2,452,754.18        |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | Graded Aggr. Base   | 27.00d            | Apr-22-2019 | Jun-01-2019 | 0.00d       | \$855,925.00          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A4620       | Place GAB NB - Section 6                                  | 10.00d            | Apr-22-2019 | May-06-2019 | 0.00d       | \$402,335.00          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A4640       | Fine Grade GAB NB - Section 6                             | 7.00d             | May-07-2019 | May-14-2019 | 0.00d       | \$25,627.50           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A4630       | Place GAB SB - Section 6                                  | 10.00d            | May-07-2019 | May-17-2019 | 0.00d       | \$402,335.00          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A4650       | Fine Grade GAB SB - Section 6                             | 7.00d             | May-18-2019 | Jun-01-2019 | 0.00d       | \$25,627.50           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|             | Asphalt   | 17.00d            | May-15-2019 | Jun-13-2019 | 0.00d       | \$1,596,829.18        |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A4660       | Place 25mm Asphaltic Concrete NB - Section 6              | 5.00d             | May-15-2019 | May-20-2019 | 0.00d       | \$621,306.43          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A4680       | Place 19mm Asphaltic Concrete NB - Section 6              | 2.00d             | May-21-2019 | May-22-2019 | 0.00d       | \$177,108.16          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |

Primary Baseline Critical Remaining Work  
Actual Work Baseline Milestone  
Remaining Work Milestone

I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow  
Counties

Data Date: Sep-15-2017

| Activity ID                              | Activity Name   | Original Duration | Start       | Finish      | Total Float | Budgeted Expense Cost | 2018 |    |    |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |  |  |
|--|---|-------------------|-------------|-------------|-------------|-----------------------|------|----|----|----|------|----|----|----|------|----|----|----|------|----|--|--|
|  |   |                   |             |             |             |                       | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 |  |  |
| A4670                                    | Place 25mm Asphaltic Concrete SB - Section 6                                    | 5.00d             | Jun-03-2019 | Jun-08-2019 | 0.00d       | \$621,306.43          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A4690                                    | Place 19mm Asphaltic Concrete SB - Section 6                                    | 2.00d             | Jun-10-2019 | Jun-13-2019 | 0.00d       | \$177,108.16          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Stage 3 - Shift Traffic to Inside        |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| I-85 Northbound                          |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Paving                                   |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A13680                                   | Place 12.5mm SMA Asphaltic Concrete - Inside Shoulder & Lane 1 - NB - Segment 2 | 6.00d             | May-28-2019 | Jun-18-2019 | 72.00d      | \$1,281,198.99        |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A13690                                   | Place 12.5mm SMA Asphaltic Concrete - Lane 2 & Lane 3 - NB - Segment 2          | 6.00d             | Jun-10-2019 | Jun-18-2019 | 72.00d      | \$680,874.90          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Traffic Control                          |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A13700                                   | Shift Traffic to New Alignment - NB Segment 2                                   | 2.00d             | Jun-07-2019 | Jun-08-2019 | 0.00d       | \$32,588.19           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| I-85 Southbound                          |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Paving                                   |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A13710                                   | Place 12.5mm SMA Asphaltic Concrete - Inside Shoulder & Lane 1 - SB - Segment 2 | 6.00d             | Jun-14-2019 | Jun-20-2019 | 8.00d       | \$567,735.90          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A13720                                   | Place 12.5mm SMA Asphaltic Concrete - Lane 2 & Lane 3 - SB - Segment 2          | 6.00d             | Jun-24-2019 | Jul-01-2019 | 62.00d      | \$680,874.90          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Traffic Control                          |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A13730                                   | Shift Traffic to New Alignment - SB Segment 2                                   | 2.00d             | Jun-21-2019 | Jun-22-2019 | 8.00d       | \$32,588.19           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Stage 4 - Construct ITS & Sound Barriers |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Section 3                                |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| I-85 Northbound                          |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Clearing                                 |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A2800                                    | Clear for ITS NB - Section 3  | 4.00d             | Mar-05-2019 | Mar-11-2019 | 84.00d      | \$49,569.74           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A2790                                    | Clear & Grub for SB 4-3 - NB - Section 3  | 10.00d            | Jun-10-2019 | Jun-22-2019 | 1.00d       | \$49,569.74           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Sound Barrier 4-3                        |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A2640                                    | Rough Grade for Sound Barrier - Section 3                                       | 6.00d             | Jun-24-2019 | Jul-01-2019 | 1.00d       | \$10,000.00           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A2650                                    | Install Posts SB 4-3 - Posts 1-40 - Section 3                                   | 7.00d             | Jul-02-2019 | Jul-12-2019 | 1.00d       | \$145,769.50          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A2670                                    | Install Panels SB 4-3 - Posts 1-40 - Section 3                                  | 6.00d             | Jul-13-2019 | Jul-19-2019 | 36.00d      | \$320,692.90          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A2660                                    | Install Posts SB 4-3 - Posts 41-80 - Section 3                                  | 7.00d             | Jul-13-2019 | Jul-20-2019 | 1.00d       | \$145,769.50          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A2920                                    | Install Posts SB 4-3 - Posts 81-120 - Section 3                                 | 7.00d             | Jul-23-2019 | Jul-30-2019 | 1.00d       | \$145,769.50          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A2680                                    | Install Panels SB 4-3 - Posts 41-80 - Section 3                                 | 6.00d             | Jul-23-2019 | Jul-29-2019 | 29.00d      | \$349,846.80          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A2950                                    | Install Panels SB 4-3 - Posts 81-120 - Section 3                                | 6.00d             | Jul-31-2019 | Aug-07-2019 | 4.00d       | \$349,846.80          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A2930                                    | Install Posts SB 4-3 - Posts 121-160 - Section 3                                | 7.00d             | Jul-31-2019 | Aug-08-2019 | 1.00d       | \$145,769.50          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A2960                                    | Install Panels SB 4-3 - Posts 121-160 - Section 3                               | 6.00d             | Aug-09-2019 | Aug-15-2019 | 3.00d       | \$320,692.90          |      |    |    | </ |      |    |    |    |      |    |    |    |      |    |  |  |

 Primary Baseline      Critical Remaining Work  
 Actual Work      Baseline Milestone  
 Remaining Work      Milestone

**I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow  
Counties**

Data Date: Sep-15-2017



C. W. Matthews  
Contracting Co., Inc.

## Proposal Schedule Cost Loaded

Submitted: August 25, 2017  
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| Activity ID            | Activity Name  | Original Duration | Start       | Finish      | Total Float | Budgeted Expense Cost | 2018 |    |    |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |  |  |
|------------------------|--|-------------------|-------------|-------------|-------------|-----------------------|------|----|----|----|------|----|----|----|------|----|----|----|------|----|--|--|
|                        |  |                   |             |             |             |                       | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 |  |  |
| A3000                  | Install Posts SB 4-4 - Posts 41-80 - Section 3           | 14.00d            | May-09-2019 | May-29-2019 | 19.00d      | \$174,669.00          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3030                  | Install Posts SB 4-4 - Posts 81-120 - Section 3          | 14.00d            | May-30-2019 | Jun-17-2019 | 19.00d      | \$174,669.00          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3020                  | Install Panels SB 4-4 - Posts 41-80 - Section 3          | 12.00d            | May-30-2019 | Jun-14-2019 | 63.00d      | \$407,561.00          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3050                  | Install Panels SB 4-4 - Posts 81-120 - Section 3         | 12.00d            | Jun-18-2019 | Jul-01-2019 | 23.00d      | \$407,561.00          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3040                  | Install Posts SB 4-4 - Posts 121-160 - Section 3         | 14.00d            | Jun-18-2019 | Jul-03-2019 | 19.00d      | \$174,669.00          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3070                  | Install Panels SB 4-4 - Posts 121-160 - Section 3        | 12.00d            | Jul-08-2019 | Jul-20-2019 | 21.00d      | \$407,561.00          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3060                  | Install Posts SB 4-4 - Posts 161-200 - Section 3         | 14.00d            | Jul-08-2019 | Jul-24-2019 | 19.00d      | \$174,669.00          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3080                  | Install Panels SB 4-4 - Posts 161-200 - Section 3        | 14.00d            | Jul-25-2019 | Aug-10-2019 | 19.00d      | \$407,561.00          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3090                  | Dress & Grass Slopes - SB 4-4 - Section 3                | 10.00d            | Aug-12-2019 | Aug-22-2019 | 18.00d      | \$125,392.87          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Guardrail              |  | 50.00d            | Jun-24-2019 | Sep-04-2019 | 18.00d      | \$77,300.85           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A2610                  | Remove Existing Guardrail SB - Section 3                 | 6.00d             | Jun-24-2019 | Jul-01-2019 | 55.00d      | \$8,058.30            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A2630                  | Install New Guardrail SB - Section 3                     | 7.00d             | Aug-23-2019 | Sep-04-2019 | 18.00d      | \$69,242.55           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| ITS                    |  | 221.00d           | Apr-19-2019 | Apr-15-2020 | 60.00d      | \$335,925.32          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Fiber Optic Trunk Line |  | 28.00d            | Mar-03-2020 | Apr-15-2020 | 60.00d      | \$175,638.44          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A2810                  | Install Duct Bank SB - Section 3                         | 14.00d            | Mar-03-2020 | Mar-24-2020 | 32.00d      | \$137,303.18          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A2820                  | Install Pull Boxes SB - Section 3                        | 4.00d             | Mar-25-2020 | Apr-02-2020 | 60.00d      | \$11,275.50           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A2830                  | Install & Splice Fiber Optic Cable SB - Section 3        | 10.00d            | Apr-03-2020 | Apr-15-2020 | 60.00d      | \$27,059.76           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Electrical             |  | 24.00d            | Apr-19-2019 | May-20-2019 | 257.00d     | \$81,205.20           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A2860                  | Install Power Service Points SB - Section 3              | 2.00d             | Apr-19-2019 | Apr-20-2019 | 279.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A2840                  | Install Electrical Conduit SB - Section 3                | 14.00d            | Apr-19-2019 | May-08-2019 | 257.00d     | \$40,602.60           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A2850                  | Install Electrical Conductors & Equipment SB - Section 3 | 10.00d            | May-09-2019 | May-20-2019 | 257.00d     | \$40,602.60           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Structures             |  | 1.00d             | Apr-19-2019 | Apr-19-2019 | 277.00d     | \$22,163.28           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A2760                  | Install ITS Structures SB (1) - Section 3                | 1.00d             | Apr-19-2019 | Apr-19-2019 | 277.00d     | \$22,163.28           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Cabinets & Devices     |  | 3.00d             | Apr-20-2019 | Apr-23-2019 | 277.00d     | \$56,918.40           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A2770                  | Install ITS Cabinets SB - Section 3                      | 2.00d             | Apr-20-2019 | Apr-22-2019 | 277.00d     | \$34,478.52           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A2780                  | Install ITS Devices SB - Section 3                       | 1.00d             | Apr-23-2019 | Apr-23-2019 | 277.00d     | \$22,439.88           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Section 4              |  | 260.00d           | Mar-12-2019 | May-06-2020 | 46.00d      | \$3,880,128.85        |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| I-85 Northbound        |  | 122.00d           | Mar-12-2019 | Sep-09-2019 | 184.00d     | \$1,473,044.27        |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Clearing               |  | 64.00d            | Mar-12-2019 | Jun-17-2019 | 34.00d      | \$49,569.74           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3710                  | Clear for ITS NB - Section 4                             | 4.00d             | Mar-12-2019 | Mar-15-2019 | 94.00d      | \$49,569.74           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A4450                  | Clear and Grub for SB 4-6 - NB - Section 4               | 5.00d             | Jun-10-2019 | Jun-17-2019 | 17.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Sound Barrier 4-6      |  | 51.00d            | Jun-18-2019 | Aug-26-2019 | 15.00d      | \$1,127,544.87        |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A4390                  | Rough Grade for Sound Barrier - Section 4                | 3.00d             | Jun-18-2019 | Jun-20-2019 | 17.00d      | \$5,000.00            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A4400                  | Install Posts SB 4-6 - Posts 1-45 - Section 4            | 16.00d            | Jun-21-2019 | Jul-12-2019 | 17.00d      | \$149,572.80          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A4420                  | Install Panels SB 4-6 - Posts 1-45 - Section 4           | 14.00d            | Jul-13-2019 | Jul-30-2019 | 33.00d      | \$349,003.20          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A4410                  | Install Posts SB 4-6 - Posts 46-90 - Section 4           | 16.00d            | Jul-13-2019 | Aug-01-2019 | 17.00d      | \$149,572.80          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A4430                  | Install Panels SB 4-6 - Posts 46-90 - Section 4          | 14.00d            | Aug-02-2019 | Aug-20-2019 | 17.00d      | \$349,003.20          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A4440                  | Dress & Grass Slopes - SB 4-6 - Section 4                | 5.00d             | Aug-21-2019 | Aug-26-2019 | 15.00d      | \$125,392.87          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Guardrail              |  | 63.00d            | Jun-10-2019 | Sep-09-2019 | 15.00d      | \$77,300.85           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3510                  | Remove Existing Guardrail NB - Section 4                 | 6.00d             | Jun-10-2019 | Jun-18-2019 | 16.00d      | \$8,058.30            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3530                  | Install New Guardrail NB - Section 4                     | 7.00d             | Aug-27-2019 | Sep-09-2019 | 15.00d      | \$69,242.55           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| ITS                    |  | 58.00d            | Mar-18-2019 | Jun-14-2019 | 244.00d     | \$218,628.81          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Fiber Optic Trunk Line |  | 28.00d            | May-03-2019 | Jun-14-2019 | 184.00d     | \$137,423.61          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3610                  | Install Duct Bank NB - Section 4                         | 14.00d            | May-03-2019 | May-18-2019 | 64.00d      | \$104,436.64          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3620                  | Install Pull Boxes NB - Section 4                        | 4.00d             | May-20-2019 | May-28-2019 | 184.00d     | \$12,403.05           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3630                  | Install & Splice Fiber Optic Cable NB - Section 4        | 10.00d            | May-29-2019 | Jun-14-2019 | 184.00d     | \$20,583.92           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Electrical             |  | 24.00d            | Mar-18-2019 | Apr-22-2019 | 278.00d     | \$81,205.20           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3660                  | Install Power Service Points NB - Section 4              | 2.00d             | Mar-18-2019 | Mar-19-2019 | 300.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3640                  | Install Electrical Conduit NB - Section 4                | 14.00d            | Mar-18-2019 | Apr-08-2019 | 278.00d     | \$40,602.60           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3650                  | Install Electrical Conductors & Equipment NB - Section 4 | 10.00d            | Apr-10-2019 | Apr-22-2019 | 278.00d     | \$40,602.60           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| I-85 Southbound        |  | 191.00d           | Jun-24-2019 | May-06-2020 | 46.00d      | \$2,407,084.57        |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Clearing               |  | 8.00d             | Jun-24-2019 | Jul-03-2019 | 93.00d      | \$99,139.48           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3700                  | Clear & Grub for SB 4-5 - SB - Section 4                 | 4.00d             | Jun-24-2019 | Jun-27-2019 | 8.00d       | \$49,569.74           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3780                  | Clear for ITS SB - Section 4                             | 4.00d             | Jun-28-2019 | Jul-03-2019 | 93.00d      | \$49,569.74           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Sound Barrier 4-5      |  | 50.00d            | Jun-28-2019 | Sep-10-2019 | 7.00d       | \$1,952,820.87        |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3550                  | Rough Grade for Sound Barrier - Section 4                | 3.00d             | Jun-28-2019 | Jul-02-2019 | 8.00d       | \$5,000.00            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |

Primary Baseline Critical Remaining Work  
Actual Work Baseline Milestone  
Remaining Work Milestone

I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow  
Counties

Data Date: Sep-15-2017



C. W. Matthews  
Contracting Co., Inc.

## Proposal Schedule Cost Loaded

Submitted: August 25, 2017  
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| Activity ID            | Activity Name  | Original Duration | Start       | Finish      | Total Float | Budgeted Expense Cost | 2018 |    |    |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |  |  |
|------------------------|--|-------------------|-------------|-------------|-------------|-----------------------|------|----|----|----|------|----|----|----|------|----|----|----|------|----|--|--|
|                        |  |                   |             |             |             |                       | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 |  |  |
| A3560                  | Install Posts SB 4-5 - Posts 1-40 - Section 4            | 12.00d            | Jul-03-2019 | Jul-19-2019 | 7.00d       | \$182,242.80          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3580                  | Install Panels SB 4-5 - Posts 1-40 - Section 4           | 10.00d            | Jul-20-2019 | Aug-01-2019 | 31.00d      | \$419,158.44          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3570                  | Install Posts SB 4-5 - Posts 40-80 - Section 4           | 12.00d            | Jul-20-2019 | Aug-03-2019 | 7.00d       | \$182,242.80          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3810                  | Install Posts SB 4-5 - Posts 80-120 - Section 4          | 12.00d            | Aug-06-2019 | Aug-20-2019 | 7.00d       | \$182,242.80          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3590                  | Install Panels SB 4-5 - Posts 40-80 - Section 4          | 10.00d            | Aug-06-2019 | Aug-16-2019 | 19.00d      | \$419,158.44          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3820                  | Install Panels SB 4-5 - Posts 80-120 - Section 4         | 10.00d            | Aug-21-2019 | Sep-03-2019 | 7.00d       | \$437,382.72          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3600                  | Dress & Grass Slopes - SB 4-5 - Section 4                | 5.00d             | Sep-04-2019 | Sep-10-2019 | 7.00d       | \$125,392.87          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Guardrail              |  | 61.00d            | Jun-24-2019 | Sep-18-2019 | 7.00d       | \$77,300.85           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3520                  | Remove Existing Guardrail SB - Section 4                 | 3.00d             | Jun-24-2019 | Jun-26-2019 | 58.00d      | \$8,058.30            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3540                  | Install New Guardrail SB - Section 4                     | 7.00d             | Sep-11-2019 | Sep-18-2019 | 7.00d       | \$69,242.55           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| ITS                    |  | 183.00d           | Jul-04-2019 | May-06-2020 | 46.00d      | \$277,823.37          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Fiber Optic Trunk Line |  | 28.00d            | Mar-25-2020 | May-06-2020 | 46.00d      | \$137,641.59          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3720                  | Install Duct Bank SB - Section 4                         | 14.00d            | Mar-25-2020 | Apr-15-2020 | 32.00d      | \$104,654.62          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3730                  | Install Pull Boxes SB - Section 4                        | 4.00d             | Apr-17-2020 | Apr-21-2020 | 46.00d      | \$12,403.05           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3740                  | Install & Splice Fiber Optic Cable SB - Section 4        | 10.00d            | Apr-22-2020 | May-06-2020 | 46.00d      | \$20,583.92           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Electrical             |  | 24.00d            | Jul-04-2019 | Aug-09-2019 | 205.00d     | \$94,756.22           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3770                  | Install Power Service Points SB - Section 4              | 2.00d             | Jul-04-2019 | Jul-08-2019 | 227.00d     | \$13,551.02           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3750                  | Install Electrical Conduit SB - Section 4                | 14.00d            | Jul-04-2019 | Jul-26-2019 | 205.00d     | \$40,602.60           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3760                  | Install Electrical Conductors & Equipment SB - Section 4 | 10.00d            | Jul-27-2019 | Aug-09-2019 | 205.00d     | \$40,602.60           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Cabinets & Devices     |  | 2.00d             | Jul-04-2019 | Jul-08-2019 | 227.00d     | \$45,425.56           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3840                  | Install ITS Cabinets SB - Section 4                      | 1.00d             | Jul-04-2019 | Jul-04-2019 | 227.00d     | \$22,985.68           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3850                  | Install ITS Devices SB - Section 4                       | 1.00d             | Jul-08-2019 | Jul-08-2019 | 227.00d     | \$22,439.88           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Section 5              |  | 270.00d           | Mar-18-2019 | May-26-2020 | 32.00d      | \$2,412,540.04        |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| I-85 Northbound        |  | 126.00d           | Mar-18-2019 | Sep-18-2019 | 176.00d     | \$1,908,831.60        |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Clearing               |  | 62.00d            | Mar-18-2019 | Jun-19-2019 | 46.00d      | \$99,139.48           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3410                  | Clear for ITS NB - Section 5                             | 4.00d             | Mar-18-2019 | Mar-22-2019 | 104.00d     | \$49,569.74           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3400                  | Clear & Grub for SB 5-1 - NB - Section 5                 | 7.00d             | Jun-10-2019 | Jun-19-2019 | 6.00d       | \$49,569.74           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Sound Barrier 5-1      |  | 57.00d            | Jun-20-2019 | Sep-10-2019 | 7.00d       | \$1,284,390.87        |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3250                  | Rough Grade for Sound Barrier - Section 5                | 3.00d             | Jun-20-2019 | Jun-22-2019 | 6.00d       | \$5,000.00            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3260                  | Install Posts SB 5-1 - Posts 1-40 - Section 5            | 14.00d            | Jun-24-2019 | Jul-12-2019 | 7.00d       | \$173,099.70          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3280                  | Install Panels SB 5-1 - Posts 1-40 - Section 5           | 12.00d            | Jul-13-2019 | Jul-27-2019 | 35.00d      | \$403,899.30          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3270                  | Install Posts SB 5-1 - Posts 41-80 - Section 5           | 14.00d            | Jul-13-2019 | Jul-30-2019 | 7.00d       | \$173,099.70          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A4370                  | Install Posts SB 5-1 - Posts 81-115 - Section 5          | 14.00d            | Jul-31-2019 | Aug-16-2019 | 7.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3290                  | Install Panels SB 5-1 - Posts 41-80 - Section 5          | 12.00d            | Jul-31-2019 | Aug-14-2019 | 21.00d      | \$403,899.30          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A4380                  | Install Panels SB 5-1 - Posts 81-115 - Section 5         | 12.00d            | Aug-19-2019 | Sep-03-2019 | 7.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A4300                  | Dress & Grass Slopes - SB 5-1 - Section 5                | 5.00d             | Sep-04-2019 | Sep-10-2019 | 7.00d       | \$125,392.87          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Guardrail              |  | 71.00d            | Jun-10-2019 | Sep-18-2019 | 7.00d       | \$77,300.85           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3210                  | Remove Existing Guardrail NB - Section 5                 | 6.00d             | Jun-10-2019 | Jun-18-2019 | 7.00d       | \$8,058.30            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3230                  | Install New Guardrail NB - Section 5                     | 7.00d             | Sep-11-2019 | Sep-18-2019 | 7.00d       | \$69,242.55           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Signs                  |  | 3.00d             | Mar-23-2019 | Mar-27-2019 | 294.00d     | \$48,797.59           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A4460                  | Construct Outside Foundation - CMS - NB - Section 5      | 2.00d             | Mar-23-2019 | Mar-26-2019 | 294.00d     | \$39,038.07           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A4470                  | Install Overhead Structure for CMS - NB - Section 5      | 1.00d             | Mar-27-2019 | Mar-27-2019 | 294.00d     | \$9,759.52            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| ITS                    |  | 68.00d            | Mar-23-2019 | Jul-02-2019 | 230.00d     | \$399,202.81          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Fiber Optic Trunk Line |  | 28.00d            | May-20-2019 | Jul-02-2019 | 180.00d     | \$160,762.31          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3310                  | Install Duct Bank NB - Section 5                         | 14.00d            | May-20-2019 | Jun-14-2019 | 64.00d      | \$123,933.74          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3320                  | Install Pull Boxes NB - Section 5                        | 4.00d             | Jun-15-2019 | Jun-19-2019 | 180.00d     | \$12,403.05           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3330                  | Install & Splice Fiber Optic Cable NB - Section 5        | 10.00d            | Jun-20-2019 | Jul-02-2019 | 180.00d     | \$24,425.52           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Electrical             |  | 24.00d            | Mar-23-2019 | Apr-26-2019 | 274.00d     | \$81,205.20           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3360                  | Install Power Service Points NB - Section 5              | 2.00d             | Mar-23-2019 | Mar-26-2019 | 296.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3340                  | Install Electrical Conduit NB - Section 5                | 14.00d            | Mar-23-2019 | Apr-13-2019 | 274.00d     | \$40,602.60           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3350                  | Install Electrical Conductors & Equipment NB - Section 5 | 10.00d            | Apr-15-2019 | Apr-26-2019 | 274.00d     | \$40,602.60           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Structures             |  | 1.00d             | Mar-23-2019 | Mar-23-2019 | 295.00d     | \$14,775.72           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3370                  | Install ITS Structures NB (2) - Section 5                | 1.00d             | Mar-23-2019 | Mar-23-2019 | 295.00d     | \$14,775.72           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Cabinets & Devices     |  | 3.00d             | Mar-26-2019 | Mar-28-2019 | 294.00d     | \$142,459.58          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3380                  | Install ITS Cabinets NB - Section 5                      | 1.00d             | Mar-26-2019 | Mar-26-2019 | 295.00d     | \$34,478.52           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A3390                  | Install ITS Devices NB - Section 5                       | 1.00d             | Mar-27-2019 | Mar-27-2019 | 295.00d     | \$29,919.84           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |

Primary Baseline Critical Remaining Work  
Actual Work Baseline Milestone  
Remaining Work Milestone

I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow  
Counties

Data Date: Sep-15-2017

| Activity ID            |  | Activity Name  | Original Duration | Start       | Finish      | Total Float  | Budgeted Expense Cost | 2018 |    |    |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |  |  |
|------------------------|--|--|-------------------|-------------|-------------|--------------|-----------------------|------|----|----|----|------|----|----|----|------|----|----|----|------|----|--|--|
|                        |  |  |                   |             |             |              |                       | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 |  |  |
| Section 6              | A3490  | Install CMS Board on Structure                           | 1.00d             | Mar-28-2019 | Mar-28-2019 | 294.00d      | \$78,061.22           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
|                        | I-85 Southbound  |  | 205.00d           | Jun-24-2019 | May-26-2020 | 32.00d       | \$503,708.44          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
|                        | Clearing   |  | 4.00d             | Jul-04-2019 | Jul-10-2019 | 93.00d       | \$49,569.74           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
|                        | A3480  | Clear for ITS SB - Section 5                             | 4.00d             | Jul-04-2019 | Jul-10-2019 | 93.00d       | \$49,569.74           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
|                        | Guardrail  |  | 13.00d            | Jun-24-2019 | Jul-11-2019 | 55.00d       | \$77,300.85           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
|                        | A3220  | Remove Existing Guardrail SB - Section 5                 | 6.00d             | Jun-24-2019 | Jul-01-2019 | 55.00d       | \$8,058.30            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
|                        | A3240  | Install New Guardrail SB - Section 5                     | 7.00d             | Jul-02-2019 | Jul-11-2019 | 55.00d       | \$69,242.55           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
|                        | ITS  |  | 193.00d           | Jul-11-2019 | May-26-2020 | 32.00d       | \$376,837.85          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
|                        | Fiber Optic Trunk Line                                   |  | 28.00d            | Apr-17-2020 | May-26-2020 | 32.00d       | \$282,081.63          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
|                        | A3420  | Install Duct Bank SB - Section 5                         | 14.00d            | Apr-17-2020 | May-06-2020 | 32.00d       | \$119,891.31          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
|                        | A3430  | Install Pull Boxes SB - Section 5                        | 4.00d             | May-07-2020 | May-11-2020 | 32.00d       | \$11,275.50           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
|                        | A3440  | Install & Splice Fiber Optic Cable SB - Section 5        | 10.00d            | May-12-2020 | May-26-2020 | 32.00d       | \$150,914.82          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
|                        | Electrical   |  | 24.00d            | Jul-11-2019 | Aug-14-2019 | 201.00d      | \$94,756.22           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
|                        | A3470  | Install Power Service Points SB - Section 5              | 2.00d             | Jul-11-2019 | Jul-12-2019 | 223.00d      | \$13,551.02           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
|                        | A3450  | Install Electrical Conduit SB - Section 5                | 14.00d            | Jul-11-2019 | Jul-31-2019 | 201.00d      | \$40,602.60           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
|                        | A3460  | Install Electrical Conductors & Equipment SB - Section 5 | 10.00d            | Aug-01-2019 | Aug-14-2019 | 201.00d      | \$40,602.60           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
|                        | Section 6  |  | 54.00d            | Jun-10-2019 | Aug-23-2019 | 193.00d      | \$882,413.33          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
|                        | I-85 Northbound  |  | 35.00d            | Jun-10-2019 | Jul-30-2019 | 212.00d      | \$472,254.75          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
|                        | Clearing   |  | 4.00d             | Jun-15-2019 | Jun-19-2019 | 64.00d       | \$49,569.74           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
|                        | A5060  | Clear for ITS & Signs NB - Section 6                     | 4.00d             | Jun-15-2019 | Jun-19-2019 | 64.00d       | \$49,569.74           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
|                        | Guardrail  |  | 13.00d            | Jun-10-2019 | Jun-26-2019 | 65.00d       | \$77,300.85           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
|                        | A4760  | Remove Existing Guardrail NB - Section 6                 | 6.00d             | Jun-10-2019 | Jun-18-2019 | 65.00d       | \$8,058.30            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
|                        | A4780  | Install New Guardrail NB - Section 6                     | 7.00d             | Jun-19-2019 | Jun-26-2019 | 65.00d       | \$69,242.55           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
|                        | Signs  |  | 7.00d             | Jun-20-2019 | Jun-27-2019 | 64.00d       | \$104,544.20          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
|                        | A5140  | Construct Shoulder Sign Foundations (2) NB - Section 6   | 4.00d             | Jun-20-2019 | Jun-24-2019 | 64.00d       | \$18,365.36           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
|                        | A5150  | Install Overhead Sign Structures (2) NB - Section 6      | 3.00d             | Jun-25-2019 | Jun-27-2019 | 64.00d       | \$86,178.84           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
|                        | ITS  |  | 28.00d            | Jun-20-2019 | Jul-30-2019 | 212.00d      | \$480,839.96          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
|                        | Fiber Optic Trunk Line                                   |  | 28.00d            | Jun-20-2019 | Jul-30-2019 | 172.00d      | \$159,634.76          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
|                        | A4960  | Install Duct Bank NB - Section 6                         | 14.00d            | Jun-20-2019 | Jul-09-2019 | 142.00d      | \$123,933.74          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
|                        | A4970  | Install Pull Boxes NB - Section 6                        | 4.00d             | Jul-10-2019 | Jul-13-2019 | 172.00d      | \$11,275.50           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
|                        | A4980  | Install & Splice Fiber Optic Cable NB - Section 6        | 10.00d            | Jul-15-2019 | Jul-30-2019 | 172.00d      | \$24,425.52           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
|                        | Electrical   |  | 24.00d            | Jun-20-2019 | Jul-25-2019 | 216.00d      | \$81,205.20           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5010                  | Install Power Service Points NB - Section 6              | 2.00d  | Jun-20-2019       | Jun-21-2019 | 238.00d     | \$0.00       |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A4990                  | Install Electrical Conduit NB - Section 6                | 14.00d   | Jun-20-2019       | Jul-09-2019 | 216.00d     | \$40,602.60  |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5000                  | Install Electrical Conductors & Equipment NB - Section 6 | 10.00d   | Jul-10-2019       | Jul-25-2019 | 216.00d     | \$40,602.60  |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| I-85 Southbound        |  | 44.00d   | Jun-24-2019       | Aug-23-2019 | 193.00d     | \$410,158.58 |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Clearing               |  | 4.00d  | Jul-11-2019       | Jul-15-2019 | 93.00d      | \$49,569.74  |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5130                  | Clear for ITS SB - Section 6                             | 4.00d  | Jul-11-2019       | Jul-15-2019 | 93.00d      | \$49,569.74  |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Guardrail              |  | 13.00d   | Jun-24-2019       | Jul-11-2019 | 55.00d      | \$77,300.85  |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A4770                  | Remove Existing Guardrail SB - Section 6                 | 6.00d  | Jun-24-2019       | Jul-01-2019 | 55.00d      | \$8,058.30   |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A4790                  | Install New Guardrail SB - Section 6                     | 7.00d  | Jul-02-2019       | Jul-11-2019 | 55.00d      | \$69,242.55  |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| ITS                    |  | 28.00d   | Jul-18-2019       | Aug-23-2019 | 193.00d     | \$283,287.99 |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Fiber Optic Trunk Line |  | 28.00d   | Jul-18-2019       | Aug-23-2019 | 193.00d     | \$160,762.31 |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5070                  | Install Duct Bank SB - Section 6                         | 14.00d   | Jul-18-2019       | Aug-07-2019 | 193.00d     | \$123,933.74 |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5080                  | Install Pull Boxes SB - Section 6                        | 4.00d  | Aug-08-2019       | Aug-12-2019 | 193.00d     | \$12,403.05  |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5090                  | Install & Splice Fiber Optic Cable SB - Section 6        | 10.00d   | Aug-13-2019       | Aug-23-2019 | 193.00d     | \$24,425.52  |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Electrical             |  | 24.00d   | Jul-18-2019       | Aug-19-2019 | 197.00d     | \$81,205.20  |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5120                  | Install Power Service Points SB - Section 6              | 2.00d  | Jul-18-2019       | Jul-19-2019 | 219.00d     | \$0.00       |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |

 Primary Baseline      Critical Remaining Work  
 Actual Work      Baseline Milestone  
 Remaining Work      Milestone

**I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow  
Counties**

Data Date: Sep-15-2017



C. W. Matthews  
Contracting Co., Inc.

## Proposal Schedule Cost Loaded

Submitted: August 25, 2017  
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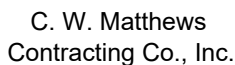
| Activity ID                                   | Activity Name  | Original Duration | Start       | Finish      | Total Float | Budgeted Expense Cost |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
|---|--|-------------------|-------------|-------------|-------------|-----------------------|------|----|----|----|------|----|----|----|------|----|----|----|------|----|--|--|
|   |  |                   |             |             |             |                       | 2018 |    |    |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |  |  |
|   |  |                   |             |             |             |                       | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 |  |  |
| I-85 Northbound                               |  |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Paving  |  | 30.00d            | Sep-26-2019 | Nov-11-2019 | 0.00d       | \$482,901.87          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A1470   | Place OGFC Asphaltic Concrete NB - Segment 2   | 6.00d             | Sep-26-2019 | Oct-03-2019 | 1.00d       | \$443,231.98          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Pavement Marking                              |  | 25.00d            | Oct-04-2019 | Nov-11-2019 | 0.00d       | \$39,669.89           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A1490   | Asphalt Cure - 30 Days - NB - Segment 2  | 30.00d            | Oct-04-2019 | Nov-02-2019 | 1.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A1500   | Install Final Pavement Markings NB - Segment 2                                       | 5.00d             | Nov-04-2019 | Nov-11-2019 | 0.00d       | \$39,669.89           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| I-85 Southbound                               |  |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Paving  |  | 6.00d             | Sep-19-2019 | Sep-25-2019 | 7.00d       | \$443,231.98          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A1480   | Place OGFC Asphaltic Concrete SB - Segment 2   | 6.00d             | Sep-19-2019 | Sep-25-2019 | 7.00d       | \$443,231.98          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Pavement Marking                              |  | 25.00d            | Sep-26-2019 | Nov-01-2019 | 5.00d       | \$39,669.89           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A1510   | Asphalt Cure - 30 Days - SB - Segment 2  | 30.00d            | Sep-26-2019 | Oct-25-2019 | 9.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A1520   | Install Final Pavement Markings SB - Segment 2                                       | 5.00d             | Oct-26-2019 | Nov-01-2019 | 5.00d       | \$39,669.89           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Segment Turnover                              |  | 14.00d            | Nov-14-2019 | Dec-06-2019 | 0.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A13960  | Prepare/Submit Written Notice to GDOT of Segment 2 Turnover                          | 2.00d             | Nov-14-2019 | Nov-15-2019 | 0.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A13970  | GDOT Review Segment 2 for Opening to Traffic   | 5.00d             | Nov-16-2019 | Nov-25-2019 | 0.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A13980  | Address Corrective Items for Segment 2 Turnover                                      | 7.00d             | Nov-26-2019 | Dec-06-2019 | 0.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Segment 3 - 725+60 to North of Mulberry River |  |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Stage 1 - Shift Traffic to Outside            |  | 48.00d            | Jul-31-2018 | Oct-04-2018 | 59.00d      | \$905,514.03          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| I-85 NB Outside Shoulder                      |  | 42.00d            | Jul-31-2018 | Sep-27-2018 | 65.00d      | \$479,198.29          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Paving  |  | 42.00d            | Jul-31-2018 | Sep-27-2018 | 65.00d      | \$479,198.29          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A13740  | MII Existing Lanes 3" - NB - Segment 3   | 9.00d             | Jul-31-2018 | Aug-11-2018 | 89.00d      | \$174,416.47          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A13750  | Place Asphaltic Leveling for Cross-Slope Correction - Section 7 & 8 - NB - Segment 3 | 9.00d             | Sep-17-2018 | Sep-27-2018 | 65.00d      | \$304,781.82          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| I-85 SB Outside Shoulder                      |  | 36.00d            | Aug-16-2018 | Oct-04-2018 | 59.00d      | \$426,315.74          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Paving  |  | 36.00d            | Aug-16-2018 | Oct-04-2018 | 59.00d      | \$426,315.74          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A13780  | MII Existing Lanes 3" - SB - Segment 3   | 9.00d             | Aug-16-2018 | Aug-28-2018 | 77.00d      | \$174,416.47          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A13790  | Place Asphaltic Leveling for Cross-Slope Correction - Section 7 & 8 - SB - Segment 3 | 9.00d             | Sep-25-2018 | Oct-04-2018 | 59.00d      | \$251,899.27          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Stage 2 - Construct Median                    |  | 225.00d           | Sep-28-2018 | Sep-28-2019 | 32.00d      | \$9,872,844.60        |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Section 7 - 725+60 to 778+40                  |  | 87.00d            | May-28-2019 | Sep-28-2019 | 32.00d      | \$3,653,215.18        |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Traffic Control                               |  | 11.00d            | May-28-2019 | Jun-14-2019 | 32.00d      | \$50,648.88           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5390   | Install Temporary Barrier NB - Section 7   | 1.00d             | May-28-2019 | May-28-2019 | 42.00d      | \$25,324.44           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5400   | Install Temporary Barrier SB - Section 7   | 1.00d             | Jun-14-2019 | Jun-14-2019 | 32.00d      | \$25,324.44           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Grading                                       |  | 39.00d            | Jun-15-2019 | Aug-09-2019 | 45.00d      | \$439,155.23          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Rough Grade                                   |  | 32.00d            | Jun-15-2019 | Jul-30-2019 | 32.00d      | \$376,221.46          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5160   | Remove Cable Barrier & Mow Strip - Section 7   | 4.00d             | Jun-15-2019 | Jun-19-2019 | 32.00d      | \$20,014.14           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5170   | Remove Top Soil - Section 7  | 8.00d             | Jun-20-2019 | Jun-28-2019 | 32.00d      | \$118,735.77          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5180   | Rough Grade to Subgrade NB - Section 7   | 10.00d            | Jul-01-2019 | Jul-13-2019 | 32.00d      | \$118,735.77          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5190   | Rough Grade to Subgrade SB - Section 7   | 10.00d            | Jul-15-2019 | Jul-30-2019 | 32.00d      | \$118,735.77          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Fine Grade                                    |  | 17.00d            | Jul-15-2019 | Aug-09-2019 | 45.00d      | \$62,933.77           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5200   | Fine Grade Subgrade NB - Section 7   | 7.00d             | Jul-15-2019 | Jul-26-2019 | 45.00d      | \$31,466.88           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5210   | Fine Grade Subgrade SB - Section 7   | 7.00d             | Jul-31-2019 | Aug-09-2019 | 45.00d      | \$31,466.88           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Drainage                                      |  | 7.00d             | Jul-01-2019 | Jul-10-2019 | 48.00d      | \$66,229.45           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Storm Drain Pipe                              |  | 5.00d             | Jul-01-2019 | Jul-08-2019 | 48.00d      | \$48,868.00           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5220   | Install F-2 to F-4 - Section 7   | 5.00d             | Jul-01-2019 | Jul-08-2019 | 48.00d      | \$48,868.00           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Drainage Structures                           |  | 2.00d             | Jul-09-2019 | Jul-10-2019 | 48.00d      | \$17,361.45           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5230   | Construct F-2 to F-4 Drop Inlets - Section 7   | 2.00d             | Jul-09-2019 | Jul-10-2019 | 48.00d      | \$17,361.45           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Signs   |  | 4.00d             | Jul-01-2019 | Jul-04-2019 | 51.00d      | \$21,815.20           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Foundations                                   |  | 4.00d             | Jul-01-2019 | Jul-04-2019 | 51.00d      | \$21,815.20           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5240   | Construct Median Sign Foundations (2) - Section 7                                    | 4.00d             | Jul-01-2019 | Jul-04-2019 | 51.00d      | \$21,815.20           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Barrier Wall                                  |  | 29.00d            | Jul-31-2019 | Sep-10-2019 | 35.00d      | \$625,047.66          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5250   | Fine Grade Barrier Wall Pad - Section 7  | 3.00d             | Jul-31-2019 | Aug-02-2019 | 32.00d      | \$10,258.18           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5260   | Pour Barrier Wall Footings - Section 7   | 4.00d             | Aug-03-2019 | Aug-09-2019 | 32.00d      | \$102,581.76          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5270   | Slip Barrier Wall - Section 7  | 16.00d            | Aug-10-2019 | Aug-28-2019 | 32.00d      | \$400,068.86          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5280   | Pour Barrier Wall Sign Transitions - Section 7                                       | 6.00d             | Aug-29-2019 | Sep-10-2019 | 35.00d      | \$112,138.86          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Base & Paving                                 |  | 47.00d            | Jul-27-2019 | Sep-28-2019 | 32.00d      | \$2,450,318.76        |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Graded Aggr. Base                             |  | 40.00d            | Jul-27-2019 | Sep-19-2019 | 32.00d      | \$855,056.30          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5290   | Place GAB NB - Section 7   | 10.00d            | Jul-27-2019 | Aug-09-2019 | 45.00d      | \$401,926.66          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5300   | Place GAB SB - Section 7   | 10.00d            | Aug-10-2019 | Aug-21-2019 | 45.00d      | \$401,926.66          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |

Primary Baseline  
Actual Work  
Remaining Work

Critical Remaining Work  
Baseline Milestone  
Milestone

## I-85 Widening, Design-Build PI No. 110610, Gwinnett & Barrow Counties



Data Date: Sep-15-2017



## Proposal Schedule

### Cost Loaded

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 Primary Baseline      Critical Remaining Work  
 Actual Work      Baseline Milestone  
 Remaining Work      Milestone

**I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow  
Counties**

Data Date: Sep-15-2017

 Primary Baseline      Critical Remaining Work  
 Actual Work      Baseline Milestone  
 Remaining Work      Milestone

**I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow  
Counties**

Data Date: Sep-15-2017



C. W. Matthews  
Contracting Co., Inc.

## Proposal Schedule Cost Loaded

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| Activity ID                          | Activity Name  | Original Duration | Start       | Finish      | Total Float | Budgeted Expense Cost | 2018 |    |    |    |    |    |    |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |  |  |
|--------------------------------------|--|-------------------|-------------|-------------|-------------|-----------------------|------|----|----|----|----|----|----|----|------|----|----|----|------|----|----|----|------|----|--|--|
|                                      |  |                   |             |             |             |                       | Q3   | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 |  |  |
| A5700                                | Remove Existing Guardrail NB - Section 7                 | 6.00d             | Oct-02-2019 | Oct-10-2019 | 93.00d      | \$8,058.30            |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5720                                | Install New Guardrail NB - Section 7                     | 7.00d             | Oct-11-2019 | Oct-19-2019 | 93.00d      | \$69,242.55           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Signs                                |  | 3.00d             | Oct-09-2019 | Oct-11-2019 | 99.00d      | \$94,058.44           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9210                                | Construct Shoulder Sign Foundations (1) NB - Section 7   | 2.00d             | Oct-09-2019 | Oct-10-2019 | 99.00d      | \$21,946.22           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9220                                | Install Overhead Sign Structures (1) NB - Section 7      | 1.00d             | Oct-11-2019 | Oct-11-2019 | 99.00d      | \$72,112.22           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| ITS                                  |  | 28.00d            | Oct-09-2019 | Nov-19-2019 | 135.00d     | \$323,199.57          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Fiber Optic Trunk Line               |  | 28.00d            | Oct-09-2019 | Nov-19-2019 | 105.00d     | \$160,762.31          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5800                                | Install Duct Bank NB - Section 7                         | 14.00d            | Oct-09-2019 | Oct-26-2019 | 79.00d      | \$123,933.74          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5810                                | Install Pull Boxes NB - Section 7                        | 4.00d             | Oct-28-2019 | Nov-01-2019 | 105.00d     | \$12,403.05           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5820                                | Install & Splice Fiber Optic Cable NB - Section 7        | 10.00d            | Nov-04-2019 | Nov-19-2019 | 105.00d     | \$24,425.52           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Electrical                           |  | 24.00d            | Oct-09-2019 | Nov-14-2019 | 139.00d     | \$94,756.22           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5850                                | Install Power Service Points NB - Section 7              | 2.00d             | Oct-09-2019 | Oct-10-2019 | 161.00d     | \$13,551.02           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5830                                | Install Electrical Conduit NB - Section 7                | 14.00d            | Oct-09-2019 | Oct-26-2019 | 139.00d     | \$40,602.60           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5840                                | Install Electrical Conductors & Equipment NB - Section 7 | 10.00d            | Oct-28-2019 | Nov-14-2019 | 139.00d     | \$40,602.60           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Structures                           |  | 1.00d             | Oct-09-2019 | Oct-09-2019 | 160.00d     | \$14,775.52           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5860                                | Install ITS Structures NB (2) - Section 7                | 1.00d             | Oct-09-2019 | Oct-09-2019 | 160.00d     | \$14,775.52           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Cabinets & Devices                   |  | 2.00d             | Oct-10-2019 | Oct-11-2019 | 160.00d     | \$52,905.52           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5870                                | Install ITS Cabinets NB - Section 7                      | 1.00d             | Oct-10-2019 | Oct-10-2019 | 160.00d     | \$22,985.68           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5880                                | Install ITS Devices NB - Section 7                       | 1.00d             | Oct-11-2019 | Oct-11-2019 | 160.00d     | \$29,919.84           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| I-85 Southbound                      |  | 32.00d            | Oct-12-2019 | Dec-04-2019 | 128.00d     | \$684,068.44          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Clearing                             |  | 4.00d             | Oct-12-2019 | Oct-17-2019 | 32.00d      | \$49,569.74           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5970                                | Clear for ITS & Signs SB - Section 7                     | 4.00d             | Oct-12-2019 | Oct-17-2019 | 32.00d      | \$49,569.74           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Guardrail                            |  | 13.00d            | Oct-12-2019 | Oct-29-2019 | 86.00d      | \$77,300.85           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5710                                | Remove Existing Guardrail SB - Section 7                 | 6.00d             | Oct-12-2019 | Oct-19-2019 | 86.00d      | \$8,058.30            |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5730                                | Install New Guardrail SB - Section 7                     | 7.00d             | Oct-21-2019 | Oct-29-2019 | 86.00d      | \$69,242.55           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Signs                                |  | 3.00d             | Oct-18-2019 | Oct-21-2019 | 92.00d      | \$92,212.49           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5980                                | Construct Shoulder Sign Foundations (1) SB - Section 7   | 2.00d             | Oct-18-2019 | Oct-19-2019 | 92.00d      | \$21,815.20           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5990                                | Install Overhead Sign Structures (1) SB - Section 7      | 1.00d             | Oct-21-2019 | Oct-21-2019 | 92.00d      | \$70,397.29           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| ITS                                  |  | 28.00d            | Oct-18-2019 | Dec-04-2019 | 128.00d     | \$331,431.42          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Fiber Optic Trunk Line               |  | 28.00d            | Oct-18-2019 | Dec-04-2019 | 128.00d     | \$158,139.32          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5910                                | Install Duct Bank SB - Section 7                         | 14.00d            | Oct-18-2019 | Nov-06-2019 | 128.00d     | \$123,933.74          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5920                                | Install Pull Boxes SB - Section 7                        | 4.00d             | Nov-09-2019 | Nov-15-2019 | 128.00d     | \$11,275.50           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5930                                | Install & Splice Fiber Optic Cable SB - Section 7        | 10.00d            | Nov-16-2019 | Dec-04-2019 | 128.00d     | \$22,930.08           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Electrical                           |  | 24.00d            | Oct-18-2019 | Nov-26-2019 | 132.00d     | \$94,756.22           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5960                                | Install Power Service Points SB - Section 7              | 2.00d             | Oct-18-2019 | Oct-19-2019 | 154.00d     | \$13,551.02           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5940                                | Install Electrical Conduit SB - Section 7                | 14.00d            | Oct-18-2019 | Nov-06-2019 | 132.00d     | \$40,602.60           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A5950                                | Install Electrical Conductors & Equipment SB - Section 7 | 10.00d            | Nov-09-2019 | Nov-26-2019 | 132.00d     | \$40,602.60           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Structures                           |  | 3.00d             | Oct-18-2019 | Oct-21-2019 | 151.00d     | \$22,163.28           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A6510                                | Install ITS Structures SB (3) - Section 7                | 3.00d             | Oct-18-2019 | Oct-21-2019 | 151.00d     | \$22,163.28           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Cabinets & Devices                   |  | 2.00d             | Oct-22-2019 | Oct-24-2019 | 151.00d     | \$56,372.60           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A6520                                | Install ITS Cabinets SB - Section 7                      | 1.00d             | Oct-22-2019 | Oct-22-2019 | 151.00d     | \$11,492.84           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A6530                                | Install ITS Devices SB - Section 7                       | 1.00d             | Oct-24-2019 | Oct-24-2019 | 151.00d     | \$44,879.76           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Ramp Meter                           |  | 20.00d            | Oct-18-2019 | Nov-18-2019 | 136.00d     | \$133,553.94          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A18910                               | Install Ramp Meter                                       | 20.00d            | Oct-18-2019 | Nov-18-2019 | 136.00d     | \$133,553.94          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Section 8                            |  | 153.00d           | May-01-2019 | Dec-14-2019 | 121.00d     | \$3,210,575.84        |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| I-85 Northbound                      |  | 153.00d           | May-01-2019 | Dec-14-2019 | 121.00d     | \$1,646,732.92        |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Clearing                             |  | 4.00d             | Oct-09-2019 | Oct-12-2019 | 89.00d      | \$49,569.74           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A6200                                | Clear for ITS NB - Section 8                             | 4.00d             | Oct-09-2019 | Oct-12-2019 | 89.00d      | \$49,569.74           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Structures                           |  | 112.00d           | May-01-2019 | Oct-09-2019 | 101.00d     | \$1,078,321.66        |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Bridge Over Mulberry Creek - Stage 4 |  | 112.00d           | May-01-2019 | Oct-09-2019 | 101.00d     | \$1,078,321.66        |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9090                                | Mobilize to Mulberry Creek Bridge - Stage 4              | 6.00d             | May-01-2019 | May-07-2019 | 118.00d     | \$63,067.79           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9100                                | Remove Existing Mulberry Creek Bridge - Superstructure   | 15.00d            | May-08-2019 | May-29-2019 | 118.00d     | \$167,930.39          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9110                                | Remove Existing Mulberry Creek Bridge - Substructure     | 10.00d            | May-30-2019 | Jun-10-2019 | 118.00d     | \$111,953.60          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Substructure                         |  | 28.00d            | Jun-17-2019 | Jul-26-2019 | 106.00d     | \$91,166.01           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8740                                | Construct Bl 2 NB - Mulberry Creek - Stage 4             | 12.00d            | Jun-17-2019 | Jun-29-2019 | 118.00d     | \$52,595.77           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8750                                | Cure Time Bl 2 NB - Mulberry Creek - Stage 4             | 7.00d             | Jun-30-2019 | Jul-06-2019 | 199.00d     | \$0.00                |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |

Primary Baseline Critical Remaining Work  
Actual Work Baseline Milestone  
Remaining Work Milestone

I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow  
Counties

Data Date: Sep-15-2017



C. W. Matthews  
Contracting Co., Inc.

## Proposal Schedule Cost Loaded

Submitted: August 25, 2017  
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| Activity ID                          | Activity Name  | Original Duration | Start       | Finish      | Total Float | Budgeted Expense Cost | 2018 |    |    |    |    |    |    |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |  |  |
|--------------------------------------|--|-------------------|-------------|-------------|-------------|-----------------------|------|----|----|----|----|----|----|----|------|----|----|----|------|----|----|----|------|----|--|--|
|                                      |  |                   |             |             |             |                       | Q3   | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 |  |  |
| A8720                                | Construct Bl 1 NB - Mulberry Creek - Stage 4                 | 7.00d             | Jul-01-2019 | Jul-11-2019 | 118.00d     | \$19,285.12           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8760                                | Construct Bl 3 NB - Mulberry Creek - Stage 4                 | 7.00d             | Jul-12-2019 | Jul-19-2019 | 118.00d     | \$19,285.12           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8730                                | Cure Time Bl 1 NB - Mulberry Creek - Stage 4                 | 7.00d             | Jul-12-2019 | Jul-18-2019 | 187.00d     | \$0.00                |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8770                                | Cure Time Bl 3 NB - Mulberry Creek - Stage 4                 | 7.00d             | Jul-20-2019 | Jul-26-2019 | 179.00d     | \$0.00                |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Foundations                          |  |                   |             |             |             |                       |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8670                                | Excavate/Drive H-Pile - Mulberry Creek - Bl 2 - NB - Stage 4 | 3.00d             | Jun-13-2019 | Jun-21-2019 | 132.00d     | \$46,602.08           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8660                                | Excavate/Drive H-Pile - Mulberry Creek - Bl 1 - NB - Stage 4 | 2.00d             | Jun-17-2019 | Jun-18-2019 | 128.00d     | \$13,015.73           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8680                                | Excavate/Drive H-Pile - Mulberry Creek - Bl 3 - NB - Stage 4 | 3.00d             | Jun-19-2019 | Jun-21-2019 | 132.00d     | \$17,440.80           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Superstructure                       |  |                   |             |             |             |                       |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8840                                | Grade for Crane Access - NB - Mulberry Creek - Stage 4       | 3.00d             | Jul-01-2019 | Jul-03-2019 | 135.00d     | \$15,766.95           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8850                                | Erect PSC Beams - Span 1 - NB - Mulberry Creek - Stage 4     | 1.00d             | Jul-19-2019 | Jul-19-2019 | 125.00d     | \$31,101.67           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8860                                | Erect PSC Beams - Span 2 - NB - Mulberry Creek - Stage 4     | 1.00d             | Jul-27-2019 | Jul-27-2019 | 119.00d     | \$186,610.00          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8890                                | Grade PSC Beams - NB - Mulberry Creek - Stage 4              | 3.00d             | Jul-29-2019 | Jul-31-2019 | 119.00d     | \$66,257.81           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8900                                | Construct Sub-Deck - NB - Mulberry Creek - Stage 4           | 10.00d            | Aug-01-2019 | Aug-13-2019 | 119.00d     | \$13,615.84           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8930                                | Construct Bridge Deck - NB - Mulberry Creek - Stage 4        | 18.00d            | Aug-14-2019 | Sep-06-2019 | 119.00d     | \$187,284.31          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8950                                | Construct Approach Slabs - NB - Mulberry Creek - Stage 4     | 4.00d             | Sep-07-2019 | Sep-12-2019 | 119.00d     | \$50,830.63           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8960                                | Construct Bridge Barrier - NB - Mulberry Creek - Stage 4     | 2.00d             | Sep-13-2019 | Sep-16-2019 | 119.00d     | \$11,072.16           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8970                                | Remove Overhangs - NB - Mulberry Creek - Stage 4             | 6.00d             | Sep-17-2019 | Sep-23-2019 | 119.00d     | \$8,834.37            |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8980                                | Sweep Deck - NB - Mulberry Creek - Stage 4                   | 3.00d             | Sep-24-2019 | Sep-26-2019 | 119.00d     | \$4,417.19            |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8990                                | Profileograph Bridge Deck - NB - Mulberry Creek - Stage 4    | 1.00d             | Sep-27-2019 | Sep-27-2019 | 119.00d     | \$2,208.59            |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9000                                | Groove Bridge Deck - NB - Mulberry Creek - Stage 4           | 3.00d             | Sep-28-2019 | Oct-01-2019 | 119.00d     | \$8,559.30            |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9010                                | Seal Joints/ Clean-up - NB - Mulberry Creek - Stage 4        | 5.00d             | Oct-02-2019 | Oct-09-2019 | 119.00d     | \$11,042.97           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Guardrail                            |  |                   |             |             |             |                       |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A6000                                | Remove Existing Guardrail NB - Section 8                     | 6.00d             | Oct-02-2019 | Oct-10-2019 | 93.00d      | \$8,058.30            |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A6020                                | Install New Guardrail NB - Section 8                         | 7.00d             | Oct-11-2019 | Oct-19-2019 | 93.00d      | \$69,242.55           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Signs                                |  |                   |             |             |             |                       |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A15150                               | Construct Shoulder CMS Foundation (1) SB - Section 8         | 2.00d             | Oct-14-2019 | Oct-15-2019 | 155.00d     | \$9,795.92            |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A15160                               | Install Overhead CMS Structure (1) SB - Section 8            | 1.00d             | Oct-17-2019 | Oct-17-2019 | 155.00d     | \$39,183.67           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| ITS                                  |  |                   |             |             |             |                       |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Fiber Optic Trunk Line               |  |                   |             |             |             |                       |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A6100                                | Install Duct Bank NB - Section 8                             | 28.00d            | Oct-28-2019 | Dec-14-2019 | 101.00d     | \$159,634.76          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A6110                                | Install Pull Boxes NB - Section 8                            | 14.00d            | Oct-28-2019 | Nov-19-2019 | 79.00d      | \$123,933.74          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A6120                                | Install & Splice Fiber Optic Cable NB - Section 8            | 10.00d            | Dec-02-2019 | Dec-14-2019 | 101.00d     | \$24,425.52           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Electrical                           |  |                   |             |             |             |                       |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A6150                                | Install Power Service Points NB - Section 8                  | 2.00d             | Oct-14-2019 | Oct-15-2019 | 157.00d     | \$13,551.02           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A6130                                | Install Electrical Conduit NB - Section 8                    | 14.00d            | Oct-14-2019 | Nov-01-2019 | 135.00d     | \$40,602.60           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A6140                                | Install Electrical Conductors & Equipment NB - Section 8     | 10.00d            | Nov-04-2019 | Nov-19-2019 | 135.00d     | \$40,602.60           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Structures                           |  |                   |             |             |             |                       |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9120                                | Install ITS Structures NB (3) - Section 8                    | 3.00d             | Oct-14-2019 | Oct-17-2019 | 154.00d     | \$22,163.28           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Cabinets & Devices                   |  |                   |             |             |             |                       |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9440                                | Install CMS Board on Structure NB - Section 8                | 1.00d             | Oct-18-2019 | Oct-18-2019 | 155.00d     | \$78,061.22           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9130                                | Install ITS Cabinets NB - Section 8                          | 1.00d             | Oct-18-2019 | Oct-18-2019 | 154.00d     | \$22,985.68           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9140                                | Install ITS Devices NB - Section 8                           | 1.00d             | Oct-19-2019 | Oct-19-2019 | 154.00d     | \$14,959.92           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| I-85 Southbound                      |  |                   |             |             |             |                       |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Clearing                             |  |                   |             |             |             |                       |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A6270                                | Clear for ITS & Signs SB - Section 8                         | 4.00d             | Oct-18-2019 | Oct-22-2019 | 32.00d      | \$49,569.74           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Structures                           |  |                   |             |             |             |                       |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Bridge Over Mulberry Creek - Stage 4 |  |                   |             |             |             |                       |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8650                                | Mobilize to Mulberry Creek Bridge - Stage 4                  | 6.00d             | Jun-07-2019 | Jun-15-2019 | 90.00d      | \$63,067.79           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8690                                | Remove Existing Mulberry Creek Bridge - SB - Superstructure  | 15.00d            | Jun-17-2019 | Jul-03-2019 | 90.00d      | \$167,930.39          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8700                                | Remove Existing Mulberry Creek Bridge - SB - Substructure    | 10.00d            | Jul-08-2019 | Jul-18-2019 | 90.00d      | \$111,953.60          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Substructure                         |  |                   |             |             |             |                       |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8360                                | Construct Bl 2 SB - Mulberry Creek - Stage 4                 | 12.00d            | Jul-24-2019 | Aug-07-2019 | 90.00d      | \$52,595.77           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8370                                | Cure Time Bl 2 SB - Mulberry Creek - Stage 4                 | 7.00d             | Aug-08-2019 | Aug-14-2019 | 160.00d     | \$0.00                |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8340                                | Construct Bl 1 SB - Mulberry Creek - Stage 4                 | 7.00d             | Aug-08-2019 | Aug-15-2019 | 90.00d      | \$19,285.12           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |

Primary Baseline Critical Remaining Work  
Actual Work Baseline Milestone  
Remaining Work Milestone

I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow  
Counties

Data Date: Sep-15-2017



C. W. Matthews  
Contracting Co., Inc.

## Proposal Schedule Cost Loaded

Submitted: August 25, 2017  
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| Activity ID            | Activity Name   | Original Duration | Start       | Finish      | Total Float | Budgeted Expense Cost | 2018 |    |    |    |    |    |    |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |  |  |
|------------------------|---|-------------------|-------------|-------------|-------------|-----------------------|------|----|----|----|----|----|----|----|------|----|----|----|------|----|----|----|------|----|--|--|
|                        |   |                   |             |             |             |                       | Q3   | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 |  |  |
| A8380                  | Construct Blt 3 SB - Mulberry Creek - Stage 4                 | 7.00d             | Aug-16-2019 | Aug-24-2019 | 90.00d      | \$19,285.12           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8350                  | Cure Time Blt 1 SB - Mulberry Creek - Stage 4                 | 7.00d             | Aug-16-2019 | Aug-22-2019 | 152.00d     | \$0.00                |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8390                  | Cure Time Blt 3 SB - Mulberry Creek - Stage 4                 | 7.00d             | Aug-25-2019 | Aug-31-2019 | 143.00d     | \$0.00                |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Foundations            |   | 8.00d             | Jul-19-2019 | Jul-29-2019 | 104.00d     | \$46,602.08           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8260                  | Excavate/Drive H-Pile - Mulberry Creek - Blt 2 - SB - Stage 4 | 3.00d             | Jul-19-2019 | Jul-23-2019 | 90.00d      | \$16,145.55           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8250                  | Excavate/Drive H-Pile - Mulberry Creek - Blt 1 - SB - Stage 4 | 2.00d             | Jul-24-2019 | Jul-25-2019 | 100.00d     | \$13,015.73           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8270                  | Excavate/Drive H-Pile - Mulberry Creek - Blt 3 - SB - Stage 4 | 3.00d             | Jul-26-2019 | Jul-29-2019 | 104.00d     | \$17,440.80           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Superstructure         |   | 75.00d            | Aug-08-2019 | Nov-13-2019 | 91.00d      | \$583,456.20          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8400                  | Grade for Crane Access - SB - Mulberry Creek - Stage 4        | 3.00d             | Aug-08-2019 | Aug-10-2019 | 107.00d     | \$15,766.95           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8430                  | Erect PSC Beams - Span 1 - SB - Mulberry Creek - Stage 4      | 1.00d             | Aug-23-2019 | Aug-23-2019 | 98.00d      | \$31,101.67           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8440                  | Erect PSC Beams - Span 2 - SB - Mulberry Creek - Stage 4      | 1.00d             | Sep-03-2019 | Sep-03-2019 | 91.00d      | \$186,610.00          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8480                  | Grade PSC Beams - SB - Mulberry Creek - Stage 4               | 3.00d             | Sep-04-2019 | Sep-06-2019 | 91.00d      | \$6,462.69            |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8470                  | Construct Sub-Deck - SB - Mulberry Creek - Stage 4            | 10.00d            | Sep-07-2019 | Sep-20-2019 | 91.00d      | \$71,616.92           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8500                  | Construct Bridge Deck - SB - Mulberry Creek - Stage 4         | 18.00d            | Sep-21-2019 | Oct-14-2019 | 91.00d      | \$175,351.13          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8580                  | Construct Approach Slabs - SB - Mulberry Creek - Stage 4      | 4.00d             | Oct-15-2019 | Oct-19-2019 | 91.00d      | \$50,803.63           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8590                  | Construct Bridge Barrier - SB - Mulberry Creek - Stage 4      | 2.00d             | Oct-21-2019 | Oct-22-2019 | 91.00d      | \$11,072.16           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8610                  | Remove Overhangs - SB - Mulberry Creek - Stage 4              | 6.00d             | Oct-23-2019 | Oct-29-2019 | 91.00d      | \$8,616.92            |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8620                  | Sweep Deck - SB - Mulberry Creek - Stage 4                    | 3.00d             | Oct-30-2019 | Nov-01-2019 | 91.00d      | \$4,308.46            |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8630                  | Profile Graph Bridge Deck - SB - Mulberry Creek - Stage 4     | 1.00d             | Nov-04-2019 | Nov-04-2019 | 91.00d      | \$2,415.23            |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8600                  | Groove Bridge Deck - SB - Mulberry Creek - Stage 4            | 3.00d             | Nov-05-2019 | Nov-07-2019 | 91.00d      | \$8,559.30            |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A8640                  | Seal Joints/Clean-up - SB - Mulberry Creek - Stage 4          | 5.00d             | Nov-08-2019 | Nov-13-2019 | 91.00d      | \$10,771.14           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Guardrail              |   | 15.00d            | Oct-12-2019 | Nov-01-2019 | 84.00d      | \$77,300.85           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A6010                  | Remove Existing Guardrail SB - Section 8                      | 6.00d             | Oct-12-2019 | Oct-19-2019 | 86.00d      | \$8,058.30            |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A6030                  | Install New Guardrail SB - Section 8                          | 7.00d             | Oct-24-2019 | Nov-01-2019 | 84.00d      | \$69,242.55           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Signs                  |   | 6.00d             | Oct-24-2019 | Oct-30-2019 | 85.00d      | \$100,560.03          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A15170                 | Construct Shoulder Sign Foundations (2) SB - Section 8        | 4.00d             | Oct-24-2019 | Oct-28-2019 | 85.00d      | \$18,365.36           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A15180                 | Install Overhead Sign Structures (2) SB - Section 8           | 2.00d             | Oct-29-2019 | Oct-30-2019 | 85.00d      | \$82,194.67           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| ITS                    |   | 28.00d            | Oct-24-2019 | Dec-09-2019 | 124.00d     | \$272,236.23          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Fiber Optic Trunk Line |   | 28.00d            | Oct-24-2019 | Dec-09-2019 | 124.00d     | \$158,507.21          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A6210                  | Install Duct Bank SB - Section 8                              | 14.00d            | Oct-24-2019 | Nov-15-2019 | 124.00d     | \$123,933.74          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A6220                  | Install Pull Boxes SB - Section 8                             | 4.00d             | Nov-16-2019 | Nov-20-2019 | 124.00d     | \$10,147.95           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A6230                  | Install & Splice Fiber Optic Cable SB - Section 8             | 10.00d            | Nov-25-2019 | Dec-09-2019 | 124.00d     | \$24,425.52           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Electrical             |   | 24.00d            | Oct-24-2019 | Dec-04-2019 | 128.00d     | \$94,756.22           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A6260                  | Install Power Service Points SB - Section 8                   | 2.00d             | Oct-24-2019 | Oct-25-2019 | 150.00d     | \$13,551.02           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A6240                  | Install Electrical Conduit SB - Section 8                     | 14.00d            | Oct-24-2019 | Nov-15-2019 | 128.00d     | \$40,602.60           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A6250                  | Install Electrical Conductors & Equipment SB - Section 8      | 10.00d            | Nov-16-2019 | Dec-04-2019 | 128.00d     | \$40,602.60           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Cabinets & Devices     |   | 3.00d             | Oct-24-2019 | Oct-26-2019 | 149.00d     | \$18,972.80           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A6170                  | Install ITS Cabinets SB - Section 8                           | 2.00d             | Oct-24-2019 | Oct-25-2019 | 149.00d     | \$11,492.84           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A6180                  | Install ITS Devices SB - Section 8                            | 1.00d             | Oct-26-2019 | Oct-26-2019 | 149.00d     | \$7,479.96            |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Stage 5 - Final Paving |   | 29.00d            | Apr-15-2020 | May-26-2020 | 0.00d       | \$583,900.12          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| I-85 Northbound        |   | 29.00d            | Apr-15-2020 | May-26-2020 | 0.00d       | \$291,950.06          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Pavement Marking       |   | 26.00d            | Apr-19-2020 | May-26-2020 | 0.00d       | \$39,669.89           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A4920                  | Asphalt Cure - 30 Days - NB - Segment 3                       | 30.00d            | Apr-19-2020 | May-18-2020 | 0.00d       | \$0.00                |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A4930                  | Install Final Pavement Markings NB - Segment 3                | 4.00d             | May-19-2020 | May-26-2020 | 0.00d       | \$39,669.89           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Paving                 |   | 4.00d             | Apr-15-2020 | Apr-18-2020 | 0.00d       | \$252,280.17          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A4900                  | Place OGFC Asphaltic Concrete NB - Segment 3                  | 4.00d             | Apr-15-2020 | Apr-18-2020 | 0.00d       | \$252,280.17          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| I-85 Southbound        |   | 29.00d            | Apr-15-2020 | May-26-2020 | 0.00d       | \$291,950.06          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Paving                 |   | 4.00d             | Apr-15-2020 | Apr-18-2020 | 0.00d       | \$252,280.17          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A4910                  | Place OGFC Asphaltic Concrete SB - Segment 3                  | 4.00d             | Apr-15-2020 | Apr-18-2020 | 0.00d       | \$252,280.17          |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Pavement Marking       |   | 26.00d            | Apr-19-2020 | May-26-2020 | 0.00d       | \$39,669.89           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A4940                  | Asphalt Cure - 30 Days - SB - Segment 3                       | 30.00d            | Apr-19-2020 | May-18-2020 | 0.00d       | \$0.00                |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A4950                  | Install Final Pavement Markings SB - Segment 3                | 4.00d             | May-19-2020 | May-26-2020 | 0.00d       | \$39,669.89           |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Segment Turnover       |   | 14.00d            | May-27-2020 | Jun-17-2020 | 0.00d       | \$0.00                |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A14030                 | Prepare/Submit Written Notice to GDOT of Segment 3 Turnover   | 2.00d             | May-27-2020 | May-28-2020 | 0.00d       | \$0.00                |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A14040                 | GDOT Review Segment 3 for Opening to Traffic                  | 5.00d             | Jun-01-2020 | Jun-06-2020 | 0.00d       | \$0.00                |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A14050                 | Address Corrective Items for Segment 3 Turnover               | 7.00d             | Jun-08-2020 | Jun-17-2020 | 0.00d       | \$0.00                |      |    |    |    |    |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |

Primary Baseline Critical Remaining Work  
Actual Work Baseline Milestone  
Remaining Work Milestone

I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow  
Counties

Data Date: Sep-15-2017



C. W. Matthews  
Contracting Co., Inc.

## Proposal Schedule Cost Loaded

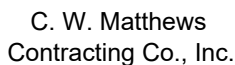
Submitted: August 25, 2017  
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| Activity ID  | Activity Name   | Original Duration | Start       | Finish      | Total Float | Budgeted Expense Cost |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|--|---|-------------------|-------------|-------------|-------------|-----------------------|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|----|----|
|  |   |                   |             |             |             |                       | 2018 |    |    |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |    |    |    |    |
|  |   |                   |             |             |             |                       | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3 | Q4 |
| Segment 4 - North of Mulberry River to End of Construction |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Stage 1 - Shift Traffic to Outside                         |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| I-85 NB Outside Shoulder                                   |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Paving   |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A16830   | MII Existing Lanes 3" - NB - Segment 4  | 9.00d             | Aug-13-2018 | Aug-22-2018 | 151.00d     | \$207,346.77          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A13760   | Place Asphaltic Leveling for Cross-Slope Correction - Section 9, 10 & 11 - NB - Segment 4 | 12.00d            | Sep-28-2018 | Oct-13-2018 | 136.00d     | \$396,443.64          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| I-85 SB Outside Shoulder                                   |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Paving   |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A16840   | MII Existing Lanes 3" - SB - Segment 4  | 9.00d             | Aug-25-2018 | Sep-07-2018 | 151.00d     | \$207,346.77          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A13800   | Place Asphaltic Leveling for Cross-Slope Correction - Section 9, 10 & 11 - SB - Segment 4 | 12.00d            | Oct-05-2018 | Oct-22-2018 | 130.00d     | \$362,488.48          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Stage 2 - Construct Median                                 |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Section 9 - 831+20 to 884+00                               |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Traffic Control  |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A7630  | Install Temporary Barrier NB - Section 9  | 1.00d             | May-01-2019 | May-01-2019 | 29.00d      | \$32,465.42           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A7640  | Install Temporary Barrier SB - Section 9  | 1.00d             | Jun-14-2019 | Jun-14-2019 | 0.00d       | \$32,465.42           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Grading  |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Rough Grade  |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A7410  | Remove Cable Barrier & Mow Strip - Section 9  | 4.00d             | Jun-15-2019 | Jun-19-2019 | 1.00d       | \$20,014.14           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A7420  | Remove Top Soil - Section 9   | 8.00d             | Jun-20-2019 | Jun-28-2019 | 1.00d       | \$118,735.77          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A7430  | Rough Grade to Subgrade NB - Section 9  | 10.00d            | Jul-01-2019 | Jul-13-2019 | 1.00d       | \$118,735.77          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A7440  | Rough Grade to Subgrade SB - Section 9  | 10.00d            | Jul-15-2019 | Jul-30-2019 | 1.00d       | \$118,735.77          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Fine Grade   |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A7450  | Fine Grade Subgrade NB - Section 9  | 7.00d             | Jul-24-2019 | Jul-31-2019 | 7.00d       | \$31,466.88           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A7460  | Fine Grade Subgrade SB - Section 9  | 7.00d             | Aug-01-2019 | Aug-10-2019 | 10.00d      | \$31,466.88           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Drainage   |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Storm Drain Pipe   |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A7470  | Install H-2 to H-8 - Section 9  | 10.00d            | Jul-01-2019 | Jul-13-2019 | 7.00d       | \$102,489.14          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Drainage Structures  |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A7480  | Construct H-Series Drop Inlets - Section 9  | 4.00d             | Jul-15-2019 | Jul-20-2019 | 7.00d       | \$50,611.44           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Barrier Wall   |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A7500  | Pour Barrier Wall Footings - Section 9  | 4.00d             | Jul-31-2019 | Aug-03-2019 | 1.00d       | \$120,001.86          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A7490  | Fine Grade Barrier Wall Pad - Section 9   | 3.00d             | Jul-31-2019 | Aug-02-2019 | 1.00d       | \$12,000.19           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A7510  | Slip Barrier Wall - Section 9   | 16.00d            | Aug-07-2019 | Aug-24-2019 | 1.00d       | \$456,007.25          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17500   | Construct Pad & Install Emergency Access Gate - Section 9                                 | 6.00d             | Aug-26-2019 | Sep-05-2019 | 12.00d      | \$157,606.94          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Base & Paving  |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Graded Aggr. Base  |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A7530  | Place GAB NB - Section 9  | 33.00d            | Aug-01-2019 | Sep-16-2019 | 1.00d       | \$881,219.50          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A7540  | Place GAB SB - Section 9  | 10.00d            | Aug-01-2019 | Aug-14-2019 | 7.00d       | \$414,224.90          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A7550  | Fine Grade GAB NB - Section 9   | 7.00d             | Aug-26-2019 | Sep-06-2019 | 1.00d       | \$26,384.85           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A7560  | Fine Grade GAB SB - Section 9   | 7.00d             | Sep-09-2019 | Sep-16-2019 | 1.00d       | \$26,384.85           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Asphalt  |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A7570  | Place 25mm Asphaltic Concrete NB - Section 9  | 5.00d             | Sep-09-2019 | Sep-13-2019 | 3.00d       | \$638,187.77          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A7590  | Place 19mm Asphaltic Concrete NB - Section 9  | 2.00d             | Sep-14-2019 | Sep-16-2019 | 6.00d       | \$182,834.44          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A7580  | Place 25mm Asphaltic Concrete SB - Section 9  | 5.00d             | Sep-17-2019 | Sep-21-2019 | 1.00d       | \$638,187.77          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A7600  | Place 19mm Asphaltic Concrete SB - Section 9  | 2.00d             | Sep-23-2019 | Sep-24-2019 | 1.00d       | \$182,834.44          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Structures   |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A15040   | Closure Duration for Jesse Cratic - Section 9 (180 Days Allowable)                        | 165.00d           | Jun-05-2019 | Nov-16-2019 | 102.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Retaining Walls  |   |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A14760   | Excavate & Pour Leveling Pad - Wall 4 - SB - Section 9                                    | 2.00d             | Jul-01-2019 | Jul-02-2019 | 53.00d      | \$20,387.19           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A14720   | Excavate & Pour Leveling Pad - Wall 3 - NB - Section 9                                    | 2.00d             | Jul-01-2019 | Jul-02-2019 | 53.00d      | \$22,513.99           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A14770   | Construct Wall 4 - Stage 2 - SB - Section 9   | 6.00d             | Jul-03-2019 | Jul-11-2019 | 53.00d      | \$101,935.93          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A14730   | Construct Wall 3 - Stage 1 - NB - Section 9   | 6.00d             | Jul-03-2019 | Jul-11-2019 | 53.00d      | \$112,569.95          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A14780   | Wall 4 Waiting Period - SB - Section 9  | 30.00d            | Jul-12-2019 | Aug-10-2019 | 75.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A14740   | Wall 3 Waiting Period - NB - Section 9  | 30.00d            | Jul-12-2019 | Aug-10-2019 | 75.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A14790   | Construct Wall 4 - Stage 2 - SB - Section 9   | 6.00d             | Aug-12-2019 | Aug-17-2019 | 53.00d      | \$100,107.98          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A14750   | Construct Wall 3 - Stage 2 - NB - Section 9   | 6.00d             | Aug-12-2019 | Aug-17-2019 | 53.00d      | \$108,615.20          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |

Primary Baseline Critical Remaining Work  
Actual Work Baseline Milestone  
Remaining Work Milestone

I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow  
Counties




Data Date: Sep-15-2017



## Proposal Schedule

### Cost Loaded

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 Primary Baseline      Critical Remaining Work  
 Actual Work      Baseline Milestone  
 Remaining Work      Milestone

**I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow  
Counties**

Data Date: Sep-15-2017



C. W. Matthews  
Contracting Co., Inc.

## Proposal Schedule Cost Loaded

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| Activity ID                       | Activity Name   | Original Duration | Start       | Finish      | Total Float | Budgeted Expense Cost | 2018 |    |    |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |  |  |
|-----------------------------------|---|-------------------|-------------|-------------|-------------|-----------------------|------|----|----|----|------|----|----|----|------|----|----|----|------|----|--|--|
|                                   |   |                   |             |             |             |                       | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 |  |  |
| A9360                             | Place GAB NB - Section 10   | 7.00d             | Oct-26-2019 | Nov-05-2019 | 4.00d       | \$350,259.64          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9370                             | Place GAB SB - Section 10   | 7.00d             | Nov-06-2019 | Nov-18-2019 | 4.00d       | \$350,259.64          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9380                             | Fine Grade GAB NB - Section 10  | 5.00d             | Nov-18-2019 | Nov-26-2019 | 0.00d       | \$22,310.46           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9390                             | Fine Grade GAB SB - Section 10  | 5.00d             | Nov-29-2019 | Dec-05-2019 | 0.00d       | \$22,310.46           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Asphalt                           |   | 12.00d            | Nov-29-2019 | Dec-16-2019 | 0.00d       | \$874,286.00          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9400                             | Place 25mm Asphaltic Concrete NB - Section 10                                   | 5.00d             | Nov-29-2019 | Dec-05-2019 | 0.00d       | \$326,500.59          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9420                             | Place 19mm Asphaltic Concrete NB - Section 10                                   | 2.00d             | Dec-06-2019 | Dec-07-2019 | 3.00d       | \$110,642.41          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9410                             | Place 25mm Asphaltic Concrete SB - Section 10                                   | 5.00d             | Dec-06-2019 | Dec-13-2019 | 0.00d       | \$326,500.59          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9430                             | Place 19mm Asphaltic Concrete SB - Section 10                                   | 2.00d             | Dec-14-2019 | Dec-16-2019 | 0.00d       | \$110,642.41          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Section 11 - 936+80 to 989+60     |   | 103.00d           | May-02-2019 | Sep-25-2019 | 0.00d       | \$3,298,041.13        |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Traffic Control                   |   | 30.00d            | May-02-2019 | Jun-15-2019 | 0.00d       | \$66,465.20           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A10130                            | Install Temporary Barrier NB - Section 11                                       | 1.00d             | May-02-2019 | May-02-2019 | 29.00d      | \$33,232.60           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A10140                            | Install Temporary Barrier SB - Section 11                                       | 1.00d             | Jun-15-2019 | Jun-15-2019 | 0.00d       | \$33,232.60           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Grading                           |   | 39.00d            | Jun-17-2019 | Aug-10-2019 | 10.00d      | \$439,155.23          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Rough Grade                       |   | 32.00d            | Jun-17-2019 | Jul-31-2019 | 0.00d       | \$376,221.46          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9900                             | Remove Cable Barrier & Mow Strip - Section 11                                   | 4.00d             | Jun-17-2019 | Jun-20-2019 | 0.00d       | \$20,014.14           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9910                             | Remove Top Soil - Section 11  | 8.00d             | Jun-21-2019 | Jul-01-2019 | 0.00d       | \$118,735.77          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9920                             | Rough Grade to Subgrade NB - Section 11   | 10.00d            | Jul-02-2019 | Jul-15-2019 | 0.00d       | \$118,735.77          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9930                             | Rough Grade to Subgrade SB - Section 11   | 10.00d            | Jul-18-2019 | Jul-31-2019 | 0.00d       | \$118,735.77          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Fine Grade                        |   | 17.00d            | Jul-18-2019 | Aug-10-2019 | 10.00d      | \$62,933.77           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9940                             | Fine Grade Subgrade NB - Section 11   | 7.00d             | Jul-18-2019 | Jul-27-2019 | 10.00d      | \$31,466.88           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9950                             | Fine Grade Subgrade SB - Section 11   | 7.00d             | Aug-01-2019 | Aug-10-2019 | 10.00d      | \$31,466.88           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Drainage                          |   | 6.00d             | Jul-02-2019 | Jul-10-2019 | 14.00d      | \$53,960.06           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Storm Drain Pipe                  |   | 4.00d             | Jul-02-2019 | Jul-08-2019 | 14.00d      | \$31,359.89           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9960                             | Install I-1 to I-2 & J-1 to J-5 - Section 11                                    | 4.00d             | Jul-02-2019 | Jul-08-2019 | 14.00d      | \$31,359.89           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Drainage Structures               |   | 2.00d             | Jul-09-2019 | Jul-10-2019 | 14.00d      | \$22,600.17           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9970                             | Construct I & J-Series Drop Inlets - Section 11                                 | 2.00d             | Jul-09-2019 | Jul-10-2019 | 14.00d      | \$22,600.17           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Signs                             |   | 2.00d             | Jul-02-2019 | Jul-03-2019 | 18.00d      | \$21,837.04           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Foundations                       |   | 2.00d             | Jul-02-2019 | Jul-03-2019 | 18.00d      | \$21,837.04           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9980                             | Construct Median Sign Foundations (1) - Section 11                              | 2.00d             | Jul-02-2019 | Jul-03-2019 | 18.00d      | \$21,837.04           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Barrier Wall                      |   | 20.00d            | Aug-01-2019 | Aug-26-2019 | 0.00d       | \$267,963.10          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A10000                            | Pour Barrier Wall Footings - Section 11   | 4.00d             | Aug-01-2019 | Aug-07-2019 | 0.00d       | \$53,592.62           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9990                             | Fine Grade Barrier Wall Pad - Section 11  | 3.00d             | Aug-01-2019 | Aug-03-2019 | 0.00d       | \$5,359.26            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A10010                            | Slip Barrier Wall - Section 11  | 16.00d            | Aug-08-2019 | Aug-26-2019 | 0.00d       | \$209,011.22          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Base & Paving                     |   | 44.00d            | Jul-29-2019 | Sep-25-2019 | 0.00d       | \$2,448,660.50        |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Graded Aggr. Base                 |   | 37.00d            | Jul-29-2019 | Sep-17-2019 | 0.00d       | \$854,494.20          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A10030                            | Place GAB NB - Section 11   | 10.00d            | Jul-29-2019 | Aug-10-2019 | 10.00d      | \$401,662.44          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A10040                            | Place GAB SB - Section 11   | 10.00d            | Aug-12-2019 | Aug-22-2019 | 10.00d      | \$401,662.44          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A10050                            | Fine Grade GAB NB - Section 11  | 7.00d             | Aug-27-2019 | Sep-09-2019 | 0.00d       | \$25,584.66           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A10060                            | Fine Grade GAB SB - Section 11  | 7.00d             | Sep-10-2019 | Sep-17-2019 | 0.00d       | \$25,584.66           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Asphalt                           |   | 14.00d            | Sep-10-2019 | Sep-25-2019 | 0.00d       | \$1,594,166.30        |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A10070                            | Place 25mm Asphaltic Concrete NB - Section 11                                   | 5.00d             | Sep-10-2019 | Sep-14-2019 | 2.00d       | \$620,247.67          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A10090                            | Place 19mm Asphaltic Concrete NB - Section 11                                   | 2.00d             | Sep-16-2019 | Sep-17-2019 | 5.00d       | \$176,835.48          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A10080                            | Place 25mm Asphaltic Concrete SB - Section 11                                   | 5.00d             | Sep-18-2019 | Sep-23-2019 | 0.00d       | \$620,247.67          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A10100                            | Place 19mm Asphaltic Concrete SB - Section 11                                   | 2.00d             | Sep-24-2019 | Sep-25-2019 | 0.00d       | \$176,835.48          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Stage 3 - Shift Traffic to Inside |   | 17.00d            | Dec-09-2019 | Jan-22-2020 | 69.00d      | \$1,308,614.21        |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| I-85 Northbound                   |   | 12.00d            | Dec-09-2019 | Jan-10-2020 | 74.00d      | \$654,307.10          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Paving                            |   | 12.00d            | Dec-09-2019 | Jan-10-2020 | 74.00d      | \$621,718.92          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A16770                            | Place 12.5mm SMA Asphaltic Concrete - Inside Shoulder & Lane 1 - NB - Segment 4 | 5.00d             | Dec-09-2019 | Dec-16-2019 | 66.00d      | \$254,289.96          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A16780                            | Place 12.5mm SMA Asphaltic Concrete - Lane 2 & Lane 3 - NB - Segment 4          | 5.00d             | Jan-06-2020 | Jan-10-2020 | 74.00d      | \$367,428.96          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Traffic Control                   |   | 2.00d             | Dec-19-2019 | Dec-20-2019 | 66.00d      | \$32,588.19           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A16790                            | Shift Traffic to New Alignment - NB Segment 4                                   | 2.00d             | Dec-19-2019 | Dec-20-2019 | 66.00d      | \$32,588.19           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| I-85 Southbound                   |   | 12.00d            | Dec-19-2019 | Jan-22-2020 | 69.00d      | \$654,307.10          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Paving                            |   | 12.00d            | Dec-19-2019 | Jan-22-2020 | 69.00d      | \$621,718.92          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A16800                            | Place 12.5mm SMA Asphaltic Concrete - Inside Shoulder & Lane 1 - SB - Segment 4 | 5.00d             | Dec-19-2019 | Jan-08-2020 | 0.00d       | \$254,289.96          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A16810                            | Place 12.5mm SMA Asphaltic Concrete - Lane 2 & Lane 3 - SB - Segment 4          | 5.00d             | Jan-16-2020 | Jan-22-2020 | 69.00d      | \$367,428.96          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |

Primary Baseline Critical Remaining Work  
Actual Work Baseline Milestone  
Remaining Work Milestone

## I-85 Widening, Design-Build PI No. 110610, Gwinnett & Barrow Counties

Data Date: Sep-15-2017

[illegible]

 Primary Baseline      Critical Remaining Work  
 Actual Work      Baseline Milestone  
 Remaining Work      Milestone

**I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow  
Counties**

Data Date: Sep-15-2017



C. W. Matthews  
Contracting Co., Inc.

## Proposal Schedule Cost Loaded

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| Activity ID            | Activity Name   | Original Duration | Start       | Finish      | Total Float | Budgeted Expense Cost | 2018 |    |    |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |  |  |
|------------------------|---|-------------------|-------------|-------------|-------------|-----------------------|------|----|----|----|------|----|----|----|------|----|----|----|------|----|--|--|
|                        |   |                   |             |             |             |                       | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 |  |  |
| A9880                  | Construct Shoulder Sign Foundations (2) NB - Section 10   | 4.00d             | Oct-25-2019 | Oct-29-2019 | 106.00d     | \$9,182.69            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9890                  | Install Overhead Sign Structures (2) NB - Section 10      | 2.00d             | Oct-30-2019 | Nov-01-2019 | 106.00d     | \$43,676.18           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| ITS                    |   | 58.00d            | Oct-25-2019 | Feb-21-2020 | 93.00d      | \$300,080.08          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Fiber Optic Trunk Line |   | 28.00d            | Dec-16-2019 | Feb-21-2020 | 93.00d      | \$151,193.84          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9700                  | Install Duct Bank NB - Section 10                         | 14.00d            | Dec-16-2019 | Jan-25-2020 | 79.00d      | \$123,933.74          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9710                  | Install Pull Boxes NB - Section 10                        | 4.00d             | Jan-27-2020 | Feb-01-2020 | 93.00d      | \$7,892.85            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9720                  | Install & Splice Fiber Optic Cable NB - Section 10        | 10.00d            | Feb-03-2020 | Feb-21-2020 | 93.00d      | \$19,367.25           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Electrical             |   | 24.00d            | Oct-25-2019 | Dec-05-2019 | 127.00d     | \$81,205.20           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9750                  | Install Power Service Points NB - Section 10              | 2.00d             | Oct-25-2019 | Oct-26-2019 | 149.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9730                  | Install Electrical Conduit NB - Section 10                | 14.00d            | Oct-25-2019 | Nov-16-2019 | 127.00d     | \$40,602.60           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9740                  | Install Electrical Conductors & Equipment NB - Section 10 | 10.00d            | Nov-18-2019 | Dec-05-2019 | 127.00d     | \$40,602.60           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Structures             |   | 1.00d             | Oct-25-2019 | Oct-25-2019 | 148.00d     | \$14,775.52           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9760                  | Install ITS Structures NB (1) - Section 10                | 1.00d             | Oct-25-2019 | Oct-25-2019 | 148.00d     | \$14,775.52           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Cabinets & Devices     |   | 2.00d             | Oct-26-2019 | Oct-28-2019 | 148.00d     | \$52,905.52           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9770                  | Install ITS Cabinets NB - Section 10                      | 1.00d             | Oct-26-2019 | Oct-26-2019 | 148.00d     | \$22,985.68           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9780                  | Install ITS Devices NB - Section 10                       | 1.00d             | Oct-28-2019 | Oct-28-2019 | 148.00d     | \$29,919.84           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| I-85 Southbound        |   | 47.00d            | Oct-29-2019 | Feb-05-2020 | 101.00d     | \$693,964.84          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Clearing               |   | 4.00d             | Oct-29-2019 | Nov-04-2019 | 32.00d      | \$49,569.74           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9870                  | Clear for ITS SB - Section 10                             | 4.00d             | Oct-29-2019 | Nov-04-2019 | 32.00d      | \$49,569.74           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Guardrail              |   | 12.00d            | Jan-16-2020 | Feb-05-2020 | 62.00d      | \$77,300.85           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9510                  | Remove Existing Guardrail SB - Section 10                 | 5.00d             | Jan-16-2020 | Jan-22-2020 | 62.00d      | \$8,058.30            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9530                  | Install New Guardrail SB - Section 10                     | 7.00d             | Jan-25-2020 | Feb-05-2020 | 62.00d      | \$69,242.55           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| ITS                    |   | 28.00d            | Nov-05-2019 | Jan-07-2020 | 116.00d     | \$567,094.25          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| HUB Building           |   | 20.00d            | Nov-05-2019 | Dec-09-2019 | 124.00d     | \$318,889.09          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A18920                 | Deliver/Install HUB EE & Modify HUB DD                    | 20.00d            | Nov-05-2019 | Dec-09-2019 | 124.00d     | \$318,889.09          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Fiber Optic Trunk Line |   | 28.00d            | Nov-05-2019 | Jan-07-2020 | 116.00d     | \$153,448.94          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9810                  | Install Duct Bank SB - Section 10                         | 14.00d            | Nov-05-2019 | Dec-02-2019 | 32.00d      | \$123,933.74          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9820                  | Install Pull Boxes SB - Section 10                        | 4.00d             | Dec-03-2019 | Dec-06-2019 | 116.00d     | \$10,147.95           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9830                  | Install & Splice Fiber Optic Cable SB - Section 10        | 10.00d            | Dec-07-2019 | Jan-07-2020 | 116.00d     | \$19,367.25           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Electrical             |   | 24.00d            | Nov-05-2019 | Dec-16-2019 | 120.00d     | \$94,756.22           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9860                  | Install Power Service Points SB - Section 10              | 2.00d             | Nov-05-2019 | Nov-06-2019 | 142.00d     | \$13,551.02           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9840                  | Install Electrical Conduit SB - Section 10                | 14.00d            | Nov-05-2019 | Dec-02-2019 | 120.00d     | \$40,602.60           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A9850                  | Install Electrical Conductors & Equipment SB - Section 10 | 10.00d            | Dec-03-2019 | Dec-16-2019 | 120.00d     | \$40,602.60           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Section 11             |   | 258.00d           | Mar-26-2019 | May-14-2020 | 39.00d      | \$4,495,086.60        |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| I-85 Northbound        |   | 218.00d           | Mar-26-2019 | Mar-16-2020 | 79.00d      | \$1,493,401.16        |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Clearing               |   | 150.00d           | Mar-26-2019 | Oct-29-2019 | 119.00d     | \$49,569.74           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A11050                 | Clear and Grub for SB 3 - NB - Section 11                 | 10.00d            | Mar-26-2019 | Apr-10-2019 | 126.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A10640                 | Clear for ITS NB - Section 11                             | 4.00d             | Oct-25-2019 | Oct-29-2019 | 119.00d     | \$49,569.74           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Sound Barrier 3        |   | 62.00d            | Apr-11-2019 | Jul-10-2019 | 123.00d     | \$1,084,480.14        |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A11300                 | Rough Grade for Sound Barrier - Section 11                | 6.00d             | Apr-11-2019 | Apr-17-2019 | 126.00d     | \$5,000.00            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A11310                 | Install Posts SB 3 - Posts 1-40 - Section 11              | 14.00d            | Apr-18-2019 | May-04-2019 | 138.00d     | \$104,964.75          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A11330                 | Install Panels SB 3 - Posts 1-40 - Section 11             | 12.00d            | May-06-2019 | May-18-2019 | 164.00d     | \$257,640.75          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A11320                 | Install Posts SB 3 - Posts 40-80 - Section 11             | 14.00d            | May-06-2019 | May-21-2019 | 138.00d     | \$104,964.75          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A11350                 | Install Posts SB 3 - Posts 80-105 - Section 11            | 12.00d            | May-22-2019 | Jun-08-2019 | 138.00d     | \$76,338.00           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A11340                 | Install Panels SB 3 - Posts 40-80 - Section 11            | 14.00d            | May-22-2019 | Jun-13-2019 | 148.00d     | \$257,640.75          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A11360                 | Install Panels SB 3 - Posts 80-105 - Section 11           | 12.00d            | Jun-10-2019 | Jun-25-2019 | 138.00d     | \$152,676.00          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A11370                 | Dress & Grass Slopes - SB 3 - Section 11                  | 10.00d            | Jun-26-2019 | Jul-10-2019 | 123.00d     | \$125,255.14          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Guardrail              |   | 13.00d            | Jan-06-2020 | Jan-30-2020 | 66.00d      | \$77,300.85           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A10440                 | Remove Existing Guardrail NB - Section 11                 | 6.00d             | Jan-06-2020 | Jan-16-2020 | 66.00d      | \$8,058.30            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A10460                 | Install New Guardrail NB - Section 11                     | 7.00d             | Jan-17-2020 | Jan-30-2020 | 66.00d      | \$69,242.55           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| ITS                    |   | 68.00d            | Oct-30-2019 | Mar-16-2020 | 79.00d      | \$282,050.43          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Fiber Optic Trunk Line |   | 28.00d            | Jan-27-2020 | Mar-16-2020 | 79.00d      | \$152,321.39          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A10540                 | Install Duct Bank NB - Section 11                         | 14.00d            | Jan-27-2020 | Feb-21-2020 | 79.00d      | \$123,933.74          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A10550                 | Install Pull Boxes NB - Section 11                        | 4.00d             | Feb-24-2020 | Feb-27-2020 | 79.00d      | \$9,020.40            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| A10560                 | Install & Splice Fiber Optic Cable NB - Section 11        | 10.00d            | Mar-02-2020 | Mar-16-2020 | 79.00d      | \$19,367.25           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |
| Electrical             |   | 24.00d            | Oct-30-2019 | Dec-12-2019 | 123.00d     | \$81,205.20           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |  |  |

Primary Baseline Critical Remaining Work  
Actual Work Baseline Milestone  
Remaining Work Milestone

## I-85 Widening, Design-Build PI No. 110610, Gwinnett & Barrow Counties

Data Date: Sep-15-2017



C. W. Matthews  
Contracting Co., Inc.

## Proposal Schedule Cost Loaded

Submitted: August 25, 2017  
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| Activity ID            | Activity Name   | Original Duration | Start       | Finish      | Total Float | Budgeted Expense Cost | 2018 |    |    |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |    |    |    |    |
|------------------------|---|-------------------|-------------|-------------|-------------|-----------------------|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|----|----|
|                        |   |                   |             |             |             |                       | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3 | Q4 |
| A10590                 | Install Power Service Points NB - Section 11                | 2.00d             | Oct-30-2019 | Nov-01-2019 | 145.00d     | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A10570                 | Install Electrical Conduit NB - Section 11                  | 14.00d            | Oct-30-2019 | Nov-25-2019 | 123.00d     | \$40,602.60           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A10580                 | Install Electrical Conductors & Equipment NB - Section 11   | 10.00d            | Nov-26-2019 | Dec-12-2019 | 123.00d     | \$40,602.60           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Structures             |   | 1.00d             | Oct-30-2019 | Oct-30-2019 | 144.00d     | \$29,551.04           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A10600                 | Install ITS Structures NB (2) - Section 11                  | 1.00d             | Oct-30-2019 | Oct-30-2019 | 144.00d     | \$29,551.04           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Cabinets & Devices     |   | 2.00d             | Nov-01-2019 | Nov-04-2019 | 144.00d     | \$18,972.80           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A10610                 | Install ITS Cabinets NB - Section 11                        | 1.00d             | Nov-01-2019 | Nov-01-2019 | 144.00d     | \$11,492.84           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A10620                 | Install ITS Devices NB - Section 11                         | 1.00d             | Nov-04-2019 | Nov-04-2019 | 144.00d     | \$7,479.96            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| I-85 Southbound        |   | 105.00d           | Nov-05-2019 | May-14-2020 | 39.00d      | \$3,001,685.43        |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Clearing               |   | 35.00d            | Nov-05-2019 | Jan-20-2020 | 11.00d      | \$99,139.48           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A10710                 | Clear for ITS & Signs SB - Section 11                       | 4.00d             | Nov-05-2019 | Nov-11-2019 | 42.00d      | \$49,569.74           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A10630                 | Clear & Grub for SB 4 - SB - Section 11                     | 4.00d             | Jan-16-2020 | Jan-20-2020 | 0.00d       | \$49,569.74           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Sound Barrier 4        |   | 64.00d            | Jan-22-2020 | May-07-2020 | 0.00d       | \$2,327,464.07        |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A10480                 | Rough Grade for Sound Barrier - Section 11                  | 7.00d             | Jan-22-2020 | Feb-03-2020 | 0.00d       | \$10,000.00           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A10490                 | Install Posts SB 4 - Posts 1-60 - Section 11                | 16.00d            | Feb-04-2020 | Feb-27-2020 | 0.00d       | \$216,053.80          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A10510                 | Install Panels SB 4 - Posts 1-60 - Section 11               | 14.00d            | Feb-28-2020 | Mar-19-2020 | 28.00d      | \$496,923.74          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A10500                 | Install Posts SB 4 - Posts 61-120 - Section 11              | 16.00d            | Feb-28-2020 | Mar-21-2020 | 0.00d       | \$216,053.80          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A11030                 | Install Posts SB 4 - Posts 121-171 - Section 11             | 14.00d            | Mar-24-2020 | Apr-11-2020 | 0.00d       | \$496,923.74          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A10520                 | Install Panels SB 4 - Posts 61-120 - Section 11             | 14.00d            | Mar-24-2020 | Apr-11-2020 | 12.00d      | \$216,053.80          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A11040                 | Install Panels SB 4 - Posts 121-171 - Section 11            | 12.00d            | Apr-13-2020 | Apr-25-2020 | 0.00d       | \$518,529.12          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A10530                 | Dress & Grass Slopes - SB 4 - Section 11                    | 8.00d             | Apr-27-2020 | May-07-2020 | 0.00d       | \$156,926.07          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Guardrail              |   | 74.00d            | Jan-16-2020 | May-14-2020 | 0.00d       | \$77,300.85           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A10450                 | Remove Existing Guardrail SB - Section 11                   | 5.00d             | Jan-16-2020 | Jan-22-2020 | 63.00d      | \$8,058.30            |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A10470                 | Install New Guardrail SB - Section 11                       | 6.00d             | May-08-2020 | May-14-2020 | 0.00d       | \$69,242.55           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Signs                  |   | 6.00d             | Nov-14-2019 | Nov-20-2019 | 95.00d      | \$188,045.90          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A10720                 | Construct Shoulder Sign Foundations (2) SB - Section 11     | 4.00d             | Nov-14-2019 | Nov-18-2019 | 95.00d      | \$43,695.91           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A10730                 | Install Overhead Sign Structures (2) SB - Section 11        | 2.00d             | Nov-19-2019 | Nov-20-2019 | 95.00d      | \$144,349.99          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| ITS                    |   | 38.00d            | Nov-14-2019 | Feb-03-2020 | 102.00d     | \$309,735.13          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Fiber Optic Trunk Line |   | 28.00d            | Dec-03-2019 | Feb-03-2020 | 102.00d     | \$155,994.89          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A10650                 | Install Duct Bank SB - Section 11                           | 14.00d            | Dec-03-2019 | Jan-07-2020 | 32.00d      | \$123,933.74          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A10660                 | Install Pull Boxes SB - Section 11                          | 4.00d             | Jan-08-2020 | Jan-16-2020 | 102.00d     | \$12,693.90           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A10670                 | Install & Splice Fiber Optic Cable SB - Section 11          | 10.00d            | Jan-17-2020 | Feb-03-2020 | 102.00d     | \$19,367.25           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Electrical             |   | 24.00d            | Nov-14-2019 | Jan-07-2020 | 116.00d     | \$94,756.22           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A10700                 | Install Power Service Points SB - Section 11                | 2.00d             | Nov-14-2019 | Nov-15-2019 | 138.00d     | \$13,551.02           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A10680                 | Install Electrical Conduit SB - Section 11                  | 14.00d            | Nov-14-2019 | Dec-06-2019 | 116.00d     | \$40,602.60           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A10690                 | Install Electrical Conductors & Equipment SB - Section 11   | 10.00d            | Dec-07-2019 | Jan-07-2020 | 116.00d     | \$40,602.60           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Structures             |   | 2.00d             | Nov-14-2019 | Nov-15-2019 | 136.00d     | \$14,775.52           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A11250                 | Install ITS Structures SB (2) - Section 11                  | 2.00d             | Nov-14-2019 | Nov-15-2019 | 136.00d     | \$14,775.52           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Cabinets & Devices     |   | 2.00d             | Nov-16-2019 | Nov-18-2019 | 136.00d     | \$44,208.50           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A11260                 | Install ITS Cabinets SB - Section 11                        | 1.00d             | Nov-16-2019 | Nov-16-2019 | 136.00d     | \$14,288.66           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A11270                 | Install ITS Devices SB - Section 11                         | 1.00d             | Nov-18-2019 | Nov-18-2019 | 136.00d     | \$29,919.84           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Stage 5 - Final Paving |   | 47.00d            | Apr-15-2020 | Jun-22-2020 | 0.00d       | \$716,274.09          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| I-85 Northbound        |   | 29.00d            | Apr-15-2020 | May-26-2020 | 18.00d      | \$358,137.05          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Paving                 |   | 27.00d            | Apr-15-2020 | May-20-2020 | 18.00d      | \$318,467.16          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A16850                 | Place OGFC Asphaltic Concrete NB - Segment 4                | 5.00d             | Apr-15-2020 | Apr-20-2020 | 23.00d      | \$318,467.16          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A16860                 | Asphalt Cure - 30 Days - NB - Segment 4                     | 30.00d            | Apr-21-2020 | May-20-2020 | 30.00d      | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Pavement Marking       |   | 2.00d             | May-21-2020 | May-26-2020 | 18.00d      | \$39,669.89           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A16870                 | Install Final Pavement Markings NB - Segment 4              | 2.00d             | May-21-2020 | May-26-2020 | 18.00d      | \$39,669.89           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| I-85 Southbound        |   | 25.00d            | May-15-2020 | Jun-22-2020 | 0.00d       | \$358,137.05          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Paving                 |   | 23.00d            | May-15-2020 | Jun-19-2020 | 0.00d       | \$318,467.16          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A16880                 | Place OGFC Asphaltic Concrete SB - Segment 4                | 5.00d             | May-15-2020 | May-20-2020 | 0.00d       | \$318,467.16          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A16890                 | Asphalt Cure - 30 Days - SB - Segment 4                     | 30.00d            | May-21-2020 | Jun-19-2020 | 0.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Pavement Marking       |   | 2.00d             | Jun-20-2020 | Jun-22-2020 | 0.00d       | \$39,669.89           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A16900                 | Install Final Pavement Markings SB - Segment 4              | 2.00d             | Jun-20-2020 | Jun-22-2020 | 0.00d       | \$39,669.89           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Segment Turnover       |   | 14.00d            | Jun-23-2020 | Jul-14-2020 | 0.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18860                 | Prepare/Submit Written Notice to GDOT of Segment 4 Turnover | 2.00d             | Jun-23-2020 | Jun-25-2020 | 0.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |

— Primary Baseline    — Critical Remaining Work  
■ Actual Work    ◆ Baseline Milestone  
■ Remaining Work    ◆ Milestone

**I-85 Widening, Design-Build**  
**PI No. 110610, Gwinnett & Barrow**  
**Counties**

Data Date: Sep-15-2017



C. W. Matthews  
Contracting Co., Inc.

## Proposal Schedule Cost Loaded

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| Activity ID                           | Activity Name                                    | Original Duration | Start       | Finish      | Total Float | Budgeted Expense Cost |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|---------------------------------------|--|-------------------|-------------|-------------|-------------|-----------------------|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|----|----|
|                                       |  |                   |             |             |             |                       | 2018 |    |    |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |    |    |    |    |
|                                       |  |                   |             |             |             |                       | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3 | Q4 |
| A18870                                | GDOT Review Segment 4 for Opening to Traffic     | 5.00d             | Jun-26-2020 | Jul-02-2020 | 0.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18880                                | Address Corrective Items for Segment 4 Turnover  | 7.00d             | Jul-06-2020 | Jul-14-2020 | 0.00d       | \$0.00                |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| <b>Operations During Construction</b> |  |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| <b>Office Trailer</b>                 |  |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18850                                | Setup Project Office                             | 13.00d            | Jun-18-2018 | Jun-30-2018 | 1.00d       | \$119,719.60          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18560                                | Project Office - July 2018                       | 31.00d            | Jul-01-2018 | Jul-31-2018 | 1.00d       | \$15,519.21           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18570                                | Project Office - August 2018                     | 31.00d            | Aug-01-2018 | Aug-31-2018 | 1.00d       | \$15,519.21           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18580                                | Project Office - September 2018                  | 30.00d            | Sep-01-2018 | Sep-30-2018 | 1.00d       | \$15,519.21           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18590                                | Project Office - October 2018                    | 31.00d            | Oct-01-2018 | Oct-31-2018 | 1.00d       | \$15,519.21           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18600                                | Project Office - November 2018                   | 30.00d            | Nov-01-2018 | Nov-30-2018 | 1.00d       | \$15,519.21           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18610                                | Project Office - December 2018                   | 31.00d            | Dec-01-2018 | Dec-31-2018 | 1.00d       | \$15,519.21           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18620                                | Project Office - January 2019                    | 31.00d            | Jan-01-2019 | Jan-31-2019 | 1.00d       | \$15,519.21           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18630                                | Project Office - February 2019                   | 28.00d            | Feb-01-2019 | Feb-28-2019 | 1.00d       | \$15,519.21           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18640                                | Project Office - March 2019                      | 31.00d            | Mar-01-2019 | Mar-31-2019 | 1.00d       | \$15,519.21           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18650                                | Project Office - April 2019                      | 30.00d            | Apr-01-2019 | Apr-30-2019 | 1.00d       | \$15,519.21           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18660                                | Project Office - May 2019                        | 31.00d            | May-01-2019 | May-31-2019 | 1.00d       | \$15,519.21           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18670                                | Project Office - June 2019                       | 30.00d            | Jun-01-2019 | Jun-30-2019 | 1.00d       | \$15,519.21           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18680                                | Project Office - July 2019                       | 31.00d            | Jul-01-2019 | Jul-31-2019 | 1.00d       | \$15,519.21           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18690                                | Project Office - August 2019                     | 31.00d            | Aug-01-2019 | Aug-31-2019 | 1.00d       | \$15,519.21           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18700                                | Project Office - September 2019                  | 30.00d            | Sep-01-2019 | Sep-30-2019 | 1.00d       | \$15,519.21           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18710                                | Project Office - October 2019                    | 31.00d            | Oct-01-2019 | Oct-31-2019 | 1.00d       | \$15,519.21           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18720                                | Project Office - November 2019                   | 30.00d            | Nov-01-2019 | Nov-30-2019 | 1.00d       | \$15,519.21           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18730                                | Project Office - December 2019                   | 31.00d            | Dec-01-2019 | Dec-31-2019 | 1.00d       | \$15,519.21           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18740                                | Project Office - January 2020                    | 31.00d            | Jan-01-2020 | Jan-31-2020 | 1.00d       | \$15,519.21           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18750                                | Project Office - February 2020                   | 29.00d            | Feb-01-2020 | Feb-29-2020 | 1.00d       | \$15,519.21           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18760                                | Project Office - March 2020                      | 31.00d            | Mar-01-2020 | Mar-31-2020 | 1.00d       | \$15,519.21           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18770                                | Project Office - April 2020                      | 30.00d            | Apr-01-2020 | Apr-30-2020 | 1.00d       | \$15,519.21           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18780                                | Project Office - May 2020                        | 31.00d            | May-01-2020 | May-31-2020 | 1.00d       | \$15,519.21           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18790                                | Project Office - June 2020                       | 30.00d            | Jun-01-2020 | Jun-30-2020 | 1.00d       | \$15,519.21           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18800                                | Project Office - July 2020                       | 31.00d            | Jul-01-2020 | Jul-31-2020 | 1.00d       | \$15,519.21           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18810                                | Project Office - August 2020                     | 31.00d            | Aug-01-2020 | Aug-31-2020 | 1.00d       | \$15,519.21           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18820                                | Project Office - September 2020                  | 30.00d            | Sep-01-2020 | Sep-30-2020 | 1.00d       | \$15,519.21           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18830                                | Project Office - October 2020                    | 11.00d            | Oct-01-2020 | Oct-11-2020 | 1.00d       | \$59,859.80           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| <b>Construction Management</b>        |  |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18030                                | Construction Project Management - July 2018      | 27.00d            | Jul-05-2018 | Jul-31-2018 | 1.00d       | \$123,056.20          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18040                                | Construction Project Management - August 2018    | 31.00d            | Aug-01-2018 | Aug-31-2018 | 1.00d       | \$123,056.20          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18050                                | Construction Project Management - September 2018 | 30.00d            | Sep-01-2018 | Sep-30-2018 | 1.00d       | \$123,056.20          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18060                                | Construction Project Management - October 2018   | 31.00d            | Oct-01-2018 | Oct-31-2018 | 1.00d       | \$123,056.20          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18070                                | Construction Project Management - November 2018  | 30.00d            | Nov-01-2018 | Nov-30-2018 | 1.00d       | \$123,056.20          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18080                                | Construction Project Management - December 2018  | 31.00d            | Dec-01-2018 | Dec-31-2018 | 1.00d       | \$123,056.20          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18090                                | Construction Project Management - January 2019   | 31.00d            | Jan-01-2019 | Jan-31-2019 | 1.00d       | \$123,056.20          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18100                                | Construction Project Management - February 2019  | 28.00d            | Feb-01-2019 | Feb-28-2019 | 1.00d       | \$123,056.20          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18110                                | Construction Project Management - March 2019     | 31.00d            | Mar-01-2019 | Mar-31-2019 | 1.00d       | \$123,056.20          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18120                                | Construction Project Management - April 2019     | 30.00d            | Apr-01-2019 | Apr-30-2019 | 1.00d       | \$123,056.20          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18130                                | Construction Project Management - May 2019       | 31.00d            | May-01-2019 | May-31-2019 | 1.00d       | \$119,056.20          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18140                                | Construction Project Management - June 2019      | 30.00d            | Jun-01-2019 | Jun-30-2019 | 1.00d       | \$119,056.20          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18150                                | Construction Project Management - July 2019      | 31.00d            | Jul-01-2019 | Jul-31-2019 | 1.00d       | \$119,056.20          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18160                                | Construction Project Management - August 2019    | 31.00d            | Aug-01-2019 | Aug-31-2019 | 1.00d       | \$119,056.20          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18170                                | Construction Project Management - September 2019 | 30.00d            | Sep-01-2019 | Sep-30-2019 | 1.00d       | \$119,056.20          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18180                                | Construction Project Management - October 2019   | 31.00d            | Oct-01-2019 | Oct-31-2019 | 1.00d       | \$119,056.20          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18190                                | Construction Project Management - November 2019  | 30.00d            | Nov-01-2019 | Nov-30-2019 | 1.00d       | \$119,056.20          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18200                                | Construction Project Management - December 2019  | 31.00d            | Dec-01-2019 | Dec-31-2019 | 1.00d       | \$119,056.20          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18210                                | Construction Project Management - January 2020   | 31.00d            | Jan-01-2020 | Jan-31-2020 | 1.00d       | \$119,056.20          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18220                                | Construction Project Management - February 2020  | 29.00d            | Feb-01-2020 | Feb-29-2020 | 1.00d       | \$119,056.20          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |

Primary Baseline Critical Remaining Work  
Actual Work Baseline Milestone  
Remaining Work Milestone

I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow  
Counties

Data Date: Sep-15-2017



C. W. Matthews  
Contracting Co., Inc.

## Proposal Schedule Cost Loaded

Submitted: August 25, 2017  
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| Activity ID                     | Activity Name                                | Original Duration | Start       | Finish      | Total Float | Budgeted Expense Cost |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
|---------------------------------|--|-------------------|-------------|-------------|-------------|-----------------------|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|----|----|
|                                 |  |                   |             |             |             |                       | 2018 |    |    |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |    |    |    |    |
|                                 |  |                   |             |             |             |                       | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3 | Q4 |
| A18230                          | Construction Project Management - March 2020 | 31.00d            | Mar-01-2020 | Mar-31-2020 | 1.00d       | \$119,056.20          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18240                          | Construction Project Management - April 2020 | 30.00d            | Apr-01-2020 | Apr-30-2020 | 1.00d       | \$119,056.20          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18250                          | Construction Project Management - May 2020   | 31.00d            | May-01-2020 | May-31-2020 | 1.00d       | \$119,056.20          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18260                          | Construction Project Management - June 2020  | 30.00d            | Jun-01-2020 | Jun-30-2020 | 1.00d       | \$119,056.20          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18270                          | Construction Project Management - July 2020  | 13.00d            | Jul-01-2020 | Jul-13-2020 | 1.00d       | \$119,056.20          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Construction Layout             |  | 757.00d           | Jun-18-2018 | Jul-13-2020 | 1.00d       | \$1,335,603.10        |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18550                          | Construction Layout - June 2018              | 13.00d            | Jun-18-2018 | Jun-30-2018 | 1.00d       | \$51,369.35           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18290                          | Construction Layout - July 2018              | 31.00d            | Jul-01-2018 | Jul-31-2018 | 1.00d       | \$51,369.35           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18300                          | Construction Layout - August 2018            | 31.00d            | Aug-01-2018 | Aug-31-2018 | 1.00d       | \$51,369.35           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18310                          | Construction Layout - September 2018         | 30.00d            | Sep-01-2018 | Sep-30-2018 | 1.00d       | \$51,369.35           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18320                          | Construction Layout - October 2018           | 31.00d            | Oct-01-2018 | Oct-31-2018 | 1.00d       | \$51,369.35           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18330                          | Construction Layout - November 2018          | 30.00d            | Nov-01-2018 | Nov-30-2018 | 1.00d       | \$51,369.35           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18340                          | Construction Layout - December 2018          | 31.00d            | Dec-01-2018 | Dec-31-2018 | 1.00d       | \$51,369.35           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18350                          | Construction Layout - January 2019           | 31.00d            | Jan-01-2019 | Jan-31-2019 | 1.00d       | \$51,369.35           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18360                          | Construction Layout - February 2019          | 28.00d            | Feb-01-2019 | Feb-28-2019 | 1.00d       | \$51,369.35           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18370                          | Construction Layout - March 2019             | 31.00d            | Mar-01-2019 | Mar-31-2019 | 1.00d       | \$51,369.35           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18380                          | Construction Layout - April 2019             | 30.00d            | Apr-01-2019 | Apr-30-2019 | 1.00d       | \$51,369.35           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18390                          | Construction Layout - May 2019               | 31.00d            | May-01-2019 | May-31-2019 | 1.00d       | \$51,369.35           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18400                          | Construction Layout - June 2019              | 30.00d            | Jun-01-2019 | Jun-30-2019 | 1.00d       | \$51,369.35           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18410                          | Construction Layout - July 2019              | 31.00d            | Jul-01-2019 | Jul-31-2019 | 1.00d       | \$51,369.35           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18420                          | Construction Layout - August 2019            | 31.00d            | Aug-01-2019 | Aug-31-2019 | 1.00d       | \$51,369.35           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18430                          | Construction Layout - September 2019         | 30.00d            | Sep-01-2019 | Sep-30-2019 | 1.00d       | \$51,369.35           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18440                          | Construction Layout - October 2019           | 31.00d            | Oct-01-2019 | Oct-31-2019 | 1.00d       | \$51,369.35           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18450                          | Construction Layout - November 2019          | 30.00d            | Nov-01-2019 | Nov-30-2019 | 1.00d       | \$51,369.35           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18460                          | Construction Layout - December 2019          | 31.00d            | Dec-01-2019 | Dec-31-2019 | 1.00d       | \$51,369.35           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18470                          | Construction Layout - January 2020           | 31.00d            | Jan-01-2020 | Jan-31-2020 | 1.00d       | \$51,369.35           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18480                          | Construction Layout - February 2020          | 29.00d            | Feb-01-2020 | Feb-29-2020 | 1.00d       | \$51,369.35           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18490                          | Construction Layout - March 2020             | 31.00d            | Mar-01-2020 | Mar-31-2020 | 1.00d       | \$51,369.35           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18500                          | Construction Layout - April 2020             | 30.00d            | Apr-01-2020 | Apr-30-2020 | 1.00d       | \$51,369.35           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18510                          | Construction Layout - May 2020               | 31.00d            | May-01-2020 | May-31-2020 | 1.00d       | \$51,369.35           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18520                          | Construction Layout - June 2020              | 30.00d            | Jun-01-2020 | Jun-30-2020 | 1.00d       | \$51,369.35           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18530                          | Construction Layout - July 2020              | 13.00d            | Jul-01-2020 | Jul-13-2020 | 1.00d       | \$51,369.35           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Maintenance During Construction |  | 740.00d           | Jul-05-2018 | Jul-13-2020 | 1.00d       | \$5,369,188.00        |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Traffic Control                 |  | 740.00d           | Jul-05-2018 | Jul-13-2020 | 1.00d       | \$4,584,985.00        |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17510                          | Traffic Control - July 2018                  | 27.00d            | Jul-05-2018 | Jul-31-2018 | 1.00d       | \$183,999.40          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17520                          | Traffic Control - August 2018                | 31.00d            | Aug-01-2018 | Aug-31-2018 | 1.00d       | \$183,999.40          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17530                          | Traffic Control - September 2018             | 30.00d            | Sep-01-2018 | Sep-30-2018 | 1.00d       | \$183,999.40          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17540                          | Traffic Control - October 2018               | 31.00d            | Oct-01-2018 | Oct-31-2018 | 1.00d       | \$183,999.40          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17550                          | Traffic Control - November 2018              | 30.00d            | Nov-01-2018 | Nov-30-2018 | 1.00d       | \$183,999.40          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17560                          | Traffic Control - December 2018              | 31.00d            | Dec-01-2018 | Dec-31-2018 | 1.00d       | \$183,999.40          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17570                          | Traffic Control - January 2019               | 31.00d            | Jan-01-2019 | Jan-31-2019 | 1.00d       | \$183,999.40          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17580                          | Traffic Control - February 2019              | 28.00d            | Feb-01-2019 | Feb-28-2019 | 1.00d       | \$183,999.40          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17590                          | Traffic Control - March 2019                 | 31.00d            | Mar-01-2019 | Mar-31-2019 | 1.00d       | \$183,999.40          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17600                          | Traffic Control - April 2019                 | 30.00d            | Apr-01-2019 | Apr-30-2019 | 1.00d       | \$183,999.40          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17610                          | Traffic Control - May 2019                   | 31.00d            | May-01-2019 | May-31-2019 | 1.00d       | \$183,999.40          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17620                          | Traffic Control - June 2019                  | 30.00d            | Jun-01-2019 | Jun-30-2019 | 1.00d       | \$183,999.40          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17630                          | Traffic Control - July 2019                  | 31.00d            | Jul-01-2019 | Jul-31-2019 | 1.00d       | \$183,999.40          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17640                          | Traffic Control - August 2019                | 31.00d            | Aug-01-2019 | Aug-31-2019 | 1.00d       | \$183,999.40          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17650                          | Traffic Control - September 2019             | 30.00d            | Sep-01-2019 | Sep-30-2019 | 1.00d       | \$183,999.40          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17660                          | Traffic Control - October 2019               | 31.00d            | Oct-01-2019 | Oct-31-2019 | 1.00d       | \$183,999.40          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17670                          | Traffic Control - November 2019              | 30.00d            | Nov-01-2019 | Nov-30-2019 | 1.00d       | \$183,999.40          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17680                          | Traffic Control - December 2019              | 31.00d            | Dec-01-2019 | Dec-31-2019 | 1.00d       | \$183,999.40          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17690                          | Traffic Control - January 2020               | 31.00d            | Jan-01-2020 | Jan-31-2020 | 1.00d       | \$183,999.40          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17700                          | Traffic Control - February 2020              | 29.00d            | Feb-01-2020 | Feb-29-2020 | 1.00d       | \$183,999.40          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |

Primary Baseline Critical Remaining Work  
Actual Work Baseline Milestone  
Remaining Work Milestone

I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow  
Counties

Data Date: Sep-15-2017



C. W. Matthews  
Contracting Co., Inc.

## Proposal Schedule Cost Loaded

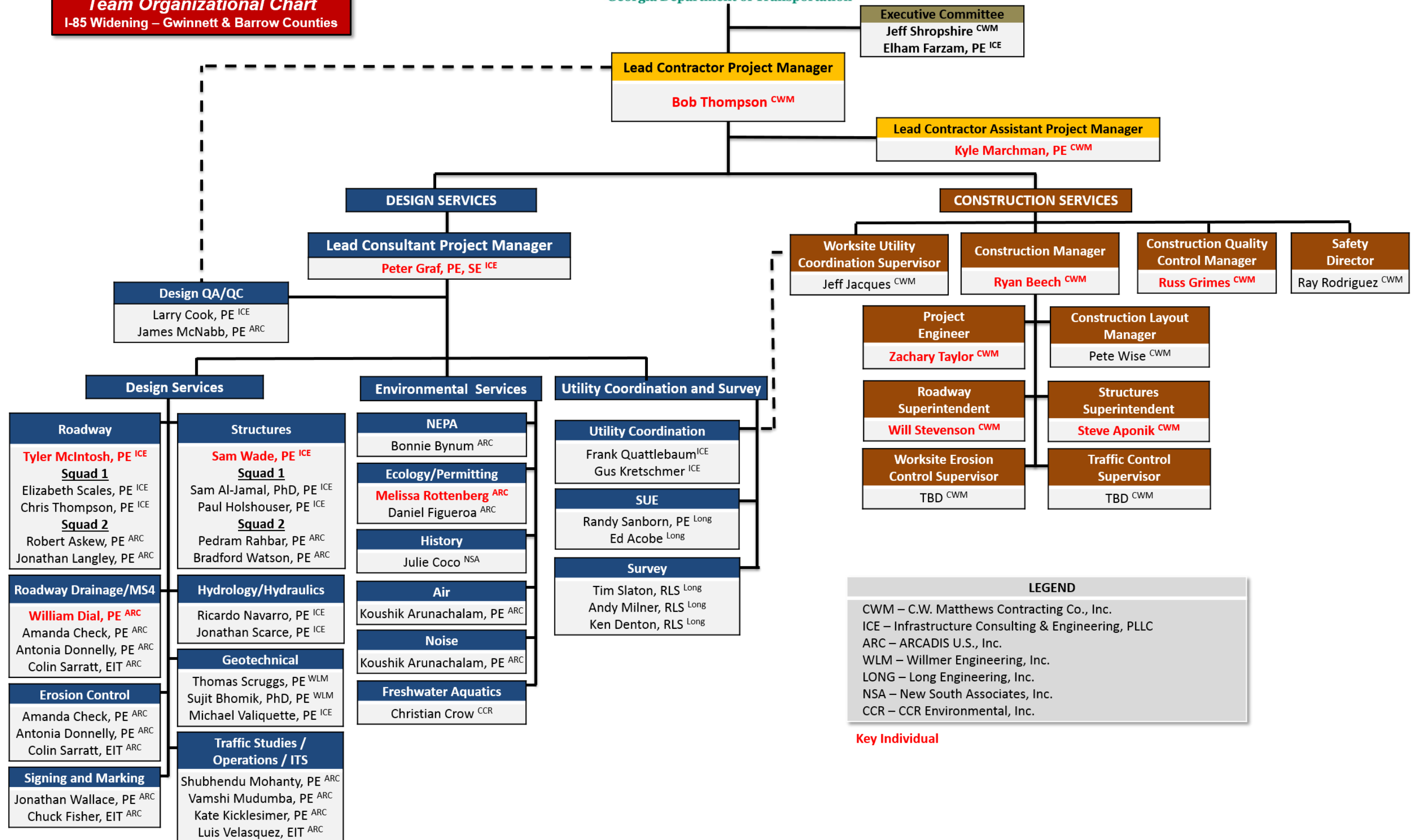
Submitted: August 25, 2017  
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| Activity ID     | Activity Name                                | Original Duration | Start       | Finish      | Total Float | Budgeted Expense Cost | 2018 |    |    |    | 2019 |    |    |    | 2020 |    |    |    | 2021 |    |    |    |    |    |
|-----------------|--|-------------------|-------------|-------------|-------------|-----------------------|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|----|----|
|                 |  |                   |             |             |             |                       | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3   | Q4 | Q1 | Q2 | Q3 | Q4 |
| A17710          | Traffic Control - March 2020                 | 31.00d            | Mar-01-2020 | Mar-31-2020 | 1.00d       | \$183,399.40          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17720          | Traffic Control - April 2020                 | 30.00d            | Apr-01-2020 | Apr-30-2020 | 1.00d       | \$183,399.40          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17730          | Traffic Control - May 2020                   | 31.00d            | May-01-2020 | May-31-2020 | 1.00d       | \$183,399.40          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17740          | Traffic Control - June 2020                  | 30.00d            | Jun-01-2020 | Jun-30-2020 | 1.00d       | \$183,399.40          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17750          | Traffic Control - July 2020                  | 13.00d            | Jul-01-2020 | Jul-13-2020 | 1.00d       | \$183,399.40          |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| Erosion Control |  |                   |             |             |             |                       |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17770          | Erosion Control Maintenance - July 2018      | 27.00d            | Jul-05-2018 | Jul-31-2018 | 1.00d       | \$31,368.12           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17780          | Erosion Control Maintenance - August 2018    | 31.00d            | Aug-01-2018 | Aug-31-2018 | 1.00d       | \$31,368.12           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17790          | Erosion Control Maintenance - September 2018 | 30.00d            | Sep-01-2018 | Sep-30-2018 | 1.00d       | \$31,368.12           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17800          | Erosion Control Maintenance - October 2018   | 31.00d            | Oct-01-2018 | Oct-31-2018 | 1.00d       | \$31,368.12           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17810          | Erosion Control Maintenance - November 2018  | 30.00d            | Nov-01-2018 | Nov-30-2018 | 1.00d       | \$31,368.12           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17820          | Erosion Control Maintenance - December 2018  | 31.00d            | Dec-01-2018 | Dec-31-2018 | 1.00d       | \$31,368.12           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17830          | Erosion Control Maintenance - January 2019   | 31.00d            | Jan-01-2019 | Jan-31-2019 | 1.00d       | \$31,368.12           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17840          | Erosion Control Maintenance - February 2019  | 28.00d            | Feb-01-2019 | Feb-28-2019 | 1.00d       | \$31,368.12           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17850          | Erosion Control Maintenance - March 2019     | 31.00d            | Mar-01-2019 | Mar-31-2019 | 1.00d       | \$31,368.12           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17860          | Erosion Control Maintenance - April 2019     | 30.00d            | Apr-01-2019 | Apr-30-2019 | 1.00d       | \$31,368.12           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17870          | Erosion Control Maintenance - May 2019       | 31.00d            | May-01-2019 | May-31-2019 | 1.00d       | \$31,368.12           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17880          | Erosion Control Maintenance - June 2019      | 30.00d            | Jun-01-2019 | Jun-30-2019 | 1.00d       | \$31,368.12           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17890          | Erosion Control Maintenance - July 2019      | 31.00d            | Jul-01-2019 | Jul-31-2019 | 1.00d       | \$31,368.12           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17900          | Erosion Control Maintenance - August 2019    | 31.00d            | Aug-01-2019 | Aug-31-2019 | 1.00d       | \$31,368.12           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17910          | Erosion Control Maintenance - September 2019 | 30.00d            | Sep-01-2019 | Sep-30-2019 | 1.00d       | \$31,368.12           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17920          | Erosion Control Maintenance - October 2019   | 31.00d            | Oct-01-2019 | Oct-31-2019 | 1.00d       | \$31,368.12           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17930          | Erosion Control Maintenance - November 2019  | 30.00d            | Nov-01-2019 | Nov-30-2019 | 1.00d       | \$31,368.12           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17940          | Erosion Control Maintenance - December 2019  | 31.00d            | Dec-01-2019 | Dec-31-2019 | 1.00d       | \$31,368.12           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17950          | Erosion Control Maintenance - January 2020   | 31.00d            | Jan-01-2020 | Jan-31-2020 | 1.00d       | \$31,368.12           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17960          | Erosion Control Maintenance - February 2020  | 29.00d            | Feb-01-2020 | Feb-29-2020 | 1.00d       | \$31,368.12           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17970          | Erosion Control Maintenance - March 2020     | 31.00d            | Mar-01-2020 | Mar-31-2020 | 1.00d       | \$31,368.12           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17980          | Erosion Control Maintenance - April 2020     | 30.00d            | Apr-01-2020 | Apr-30-2020 | 1.00d       | \$31,368.12           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A17990          | Erosion Control Maintenance - May 2020       | 31.00d            | May-01-2020 | May-31-2020 | 1.00d       | \$31,368.12           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18000          | Erosion Control Maintenance - June 2020      | 30.00d            | Jun-01-2020 | Jun-30-2020 | 1.00d       | \$31,368.12           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |
| A18010          | Erosion Control Maintenance - July 2020      | 13.00d            | Jul-01-2020 | Jul-13-2020 | 1.00d       | \$31,368.12           |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |    |    |

Primary Baseline      Critical Remaining Work  
Actual Work      Baseline Milestone  
Remaining Work      Milestone

I-85 Widening, Design-Build  
PI No. 110610, Gwinnett & Barrow  
Counties

Data Date: Sep-15-2017

**Team Organizational Chart**  
I-85 Widening – Gwinnett & Barrow Counties

**EXHIBIT 3**

**RESERVED**

-

**EXHIBIT 4**

**RIGHT OF WAY**  
**(Existing Right of Way and Required Right of Way)**

The form and content of this Exhibit 4 is set forth on the Sharepoint site.

**EXHIBIT 5**

**RESERVED**

**EXHIBIT 6**

**RESERVED**

**EXHIBIT 7**

**RESERVED**

**EXHIBIT 8**

**FEDERAL REQUIREMENTS**

| <b><u>Exhibit Description</u></b>   | <b><u>No. of Pages</u></b> |
|---|----------------------------|
| Attachment 1 – Federal Requirements for Federal Aid Construction Facilities   | 2                          |
| Attachment 2 – Required Contract Provisions, Federal-Aid Construction Contracts - FHWA Form 1273  | 12                         |
| Attachment 3 – GDOT Special Provision - Modifications to FHWA Form 1273   | 1                          |
| Attachment 4 – Federal Prevailing Wage Rate   | 25                         |
| Attachment 5 – Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246) (43 FR 14895) | 4                          |
| Attachment 6 – Disadvantaged Business Enterprise Program - Criteria for Acceptability   | 9                          |
| Attachment 7 – Debarment and Suspension Certification   | 1                          |
| Attachment 8 – Certification Regarding Use of Contract Funds For Lobbying   | 2                          |
| Attachment 9 – Reserved   | XX                         |
| Attachment 10 – Compliance with Buy America Requirements  | 2                          |
| Attachment 11 – Compliance with the Cargo Preference Act  | 2                          |

**ATTACHMENT 1 TO EXHIBIT 8**

**FEDERAL REQUIREMENTS FOR FEDERAL-AID CONSTRUCTION FACILITIES**

GENERAL. — The work herein proposed will be financed in whole or in part with federal funds, and therefore all of the statutes, rules and regulations promulgated by the federal government and applicable to work financed in whole or in part with federal funds will apply to such work. The “Required Contract Provisions, Federal-Aid Construction Contracts, Form FHWA-1273,” are included in this Exhibit 8. Whenever in said required contract provisions references are made to:

(a) “SHA contracting officer,” “SHA resident engineer,” or “authorized representative of the SHA,” such references shall be construed to mean GDOT or its Authorized Representative;

(b) “contractor,” “prime contractor,” “bidder” or “prospective primary participant,” such references shall be construed to mean Design-Build Team or its authorized representative and/or the Design-Build Contractor or its authorized representative, as may be appropriate under the circumstances;

(c) “contract” or “prime contract,” such references shall be construed to mean the Design-Build Agreement;

(d) “subcontractor,” “supplier,” “vendor,” “prospective lower tier participant” or “lower tier subcontractor,” such references shall be construed to mean, as appropriate, Contractors other than the Design-Build Contractor; and

(e) “department,” “agency” or “department or agency entering into this transaction,” such references shall be construed to mean GDOT, except where a different department or agency is specified.

PERFORMANCE OF PREVIOUS CONTRACT. — In addition to the provisions in Section II, “NONDISCRIMINATION,” and Section VI, “SUBLETTING OR ASSIGNING THE CONTRACT,” of the Form FHWA-1273 required contract provisions, Design-Build Team shall cause the contractor to comply with the following:

The bidder shall execute the CERTIFICATION WITH REGARD TO THE PERFORMANCE OF PREVIOUS CONTRACTS OR SUBCONTRACTS SUBJECT TO THE EQUAL OPPORTUNITY CLAUSE AND THE FILING OF REQUIRED REPORTS located in the proposal. No request for subletting or assigning any portion of the contract in excess of \$10,000 will be considered under the provisions of Section VI of the required contract provisions unless such request is accompanied by the CERTIFICATION referred to above, executed by the proposed subcontractor.

NON-COLLUSION PROVISION. — The provisions in this section are applicable to all contracts except contracts for Federal Aid Secondary Projects. Title 23, United States Code, Section 112, requires as a condition precedent to approval by the Federal Highway Administrator of the contract for this work that each bidder file a sworn statement executed by, or on behalf of, the person, firm, association, or corporation to whom such contract is to be awarded, certifying that such person, firm, association, or corporation has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any

action in restraint of free competitive bidding in connection with the submitted bid. A form to make the non-collusion affidavit statement required by 23 U.S.C. § 112 as a certification under penalty of perjury rather than as a sworn statement as permitted by 28 U.S.C. § 1746, is included in the Proposal.

PARTICIPATION BY DISADVANTAGED BUSINESS ENTERPRISES IN SUBCONTRACTING. — Part 26, Title 49, Code of Federal Regulations applies to this Project. Pertinent sections of said Code are incorporated within other articles or sections of the Agreement and any other Contract and the GDOT Disadvantaged Business Enterprise Program adopted pursuant to 49 CFR Part 26.

#### CONVICT PRODUCED MATERIALS

a. FHWA Federal-aid projects are subject to 23 C.F.R. § 635.417, Convict produced materials.

b. Materials produced after July 1, 1991, by convict labor may only be incorporated in a Federal aid highway construction project if such materials have been: (i) produced by convicts who are on parole, supervised release, or probation from a prison, or (ii) produced in a prison project in which convicts, during the 12 month period ending July 1, 1987, produced materials for use in Federal aid highway construction projects, and the cumulative annual production amount of such materials for use in Federal aid highway construction does not exceed the amount of such materials produced in such project for use in Federal aid highway construction during the 12 month period ending July 1, 1987.

#### ACCESS TO RECORDS

a. As required by 49 C.F.R. 18.36(i)(10), Design-Build Team and its Contractors shall allow FHWA and the Comptroller General of the United States, or their duly authorized representatives, access to all books, documents, papers, and records of Design-Build Team and Contractors which are directly pertinent to any grantee or subgrantee contract, for the purpose of making audit, examination, excerpts, and transcriptions thereof. In addition, as required by 49 C.F.R. 18.36(i)(11), Design-Build Team and its Contractors shall retain all such books, documents, papers, and records for three years after final payment is made pursuant to any such contract and all other pending matters are closed.

b. Design-Build Team agrees to include this section in each Contract at each tier, without modification except as appropriate to identify the Contractor who will be subject to its provisions.

**ATTACHMENT 2 TO EXHIBIT 8**

**FHWA-1273** -- Revised May 1, 2012

**REQUIRED CONTRACT PROVISIONS**

**FEDERAL-AID CONSTRUCTION CONTRACTS**

- . General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

**ATTACHMENTS**

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

**I. GENERAL**

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work

performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

**II. NONDISCRIMINATION**

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the

U.S. Department of Labor (US DOL) and FHWA requirements.

**1. Equal Employment Opportunity:** Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

**2. EEO Officer:** The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

**3. Dissemination of Policy:** All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the

contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

**4. Recruitment:** When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

**5. Personnel Actions:** Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

**6. Training and Promotion:**

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

**7. Unions:** If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

**8. Reasonable Accommodation for Applicants / Employees with Disabilities:** The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

**9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment:** The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

**10. Assurance Required by 49 CFR 26.13(b):**

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

**11. Records and Reports:** The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

### III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

### IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

#### 1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. (1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their

representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

## **2. Withholding**

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers,

employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

## **3. Payrolls and basic records**

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b. (1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee ( e.g. , the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this

section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

#### 4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

**5. Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

**6. Subcontracts.** The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

**7. Contract termination: debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

**8. Compliance with Davis-Bacon and Related Act requirements.** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

**9. Disputes concerning labor standards.** Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

#### **10. Certification of eligibility.**

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

### **V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT**

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

**1. Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

**2. Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case

of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

**3. Withholding for unpaid wages and liquidated damages.** The FHWA or the contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

**4. Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

## VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;

(2) the prime contractor remains responsible for the quality of the work of the leased employees;

(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

## VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

### **VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS**

#### **This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.**

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

### **IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.

2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

### **X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION**

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

#### **1. Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in

addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

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## **2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:**

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

## **2. Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier

participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue additional remedies, including suspension and/or debarment.

\*\*\*\*\*

**Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:**

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

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**XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

**ATTACHMENT A - EMPLOYMENT AND  
MATERIALS PREFERENCE FOR  
APPALACHIAN DEVELOPMENT  
HIGHWAY SYSTEM OR APPALACHIAN  
LOCAL ACCESS ROAD CONTRACTS**

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for

**ATTACHMENT 3 TO EXHIBIT 8**

**GDOT Special Provision  
Modifications to FHWA Form 1273**

1. Subsections IV.3(a); Delete the wording referencing “social security number” in the second sentence and substitute “and the last four digits of the social security number”.

**ATTACHMENT 4 TO EXHIBIT 8**

**FEDERAL PREVAILING WAGE RATE**

**(Subject to change)**

**DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA**

U. S. Department of Labor

General Decision Number: GA170261 01/06/2017 GA261

Superseded General Decision Number: GA20160261

State: Georgia

Construction Type: Highway

County: Gwinnett County in Georgia.

**HIGHWAY CONSTRUCTION PROJECTS**

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.20 for calendar year 2017 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2017. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Modification Number Publication Date

0 01/06/2017

SUGA2014-083 10/03/2016

Rates Fringes

|   |          |     |
|---|----------|-----|
| CARPENTER, Excludes Form Work .....   | \$ 13.77 | 000 |
| CEMENT MASON/CONCRETE FINISHER .....  | \$ 14.18 | 000 |
| FENCE ERECTOR .....   | \$ 16.54 | 000 |
| FORM WORKER .....   | \$ 15.26 | 208 |
| HIGHWAY/PARKING LOT STRIPING:   |          |     |
| Operator (Striping Machine) .....   | \$ 12.37 | 195 |
| INSTALLER - GUARDRAIL .....   | \$ 13.50 | 000 |
| INSTALLER - SIGN .....  | \$ 13.03 | 000 |
| IRONWORKER, REINFORCING .....   | \$ 14.64 | 000 |
| IRONWORKER, STRUCTURAL .....  | \$ 15.12 | 000 |
| LABORER: Concrete Paving Joint Sealer .....   | \$ 17.66 | 000 |
| LABORER: Grade Checker .....  | \$ 11.45 | 000 |
| LABORER: Mason Tender - Brick .....   | \$ 11.61 | 000 |
| LABORER: Mason Tender - Cement/Concrete .....   | \$ 11.44 | 000 |
| LABORER: Pipelayer .....  | \$ 13.95 | 120 |
| LABORER: Asphalt (Includes Distributor, Raker, Screed,<br>Shoveler, and Spreader) ..... | \$ 13.15 | 000 |
| LABORER: Common or General, Includes Erosion Control ...                                | \$ 11.10 | 000 |

|  |          |      |
|--|----------|------|
| OPERATOR: Backhoe/Excavator/Trackhoe.....  | \$ 15.87 | 136  |
| OPERATOR: Bobcat/Skid Steer/Skid Loader.....                                       | \$ 13.38 | 000  |
| OPERATOR: Broom/Sweeper .....  | \$ 14.83 | 138  |
| OPERATOR: Bulldozer .....  | \$ 17.25 | 201  |
| OPERATOR: Compactor .....  | \$ 14.64 | 000  |
| OPERATOR: Concrete Saw.....  | \$ 18.94 | 000  |
| OPERATOR: Crane .....  | \$ 22.31 | 1072 |
| OPERATOR: Distributor.....   | \$ 17.00 | 193  |
| OPERATOR: Grader/Blade.....  | \$ 18.42 | 504  |
| OPERATOR: Hydroseeder .....  | \$ 15.20 | 000  |
| OPERATOR: Loader.....  | \$ 14.68 | 154  |
| OPERATOR: Mechanic.....  | \$ 19.54 | 000  |
| OPERATOR: Milling Machine Groundsman .....   | \$ 13.43 | 124  |
| OPERATOR: Milling Machine .....  | \$ 14.69 | 027  |
| OPERATOR: Paver (Asphalt, Aggregate, and Concrete) .....                           | \$ 16.26 | 221  |
| OPERATOR: Piledriver .....   | \$ 16.70 | 000  |
| OPERATOR: Roller .....   | \$ 14.21 | 000  |
| OPERATOR: Scraper .....  | \$ 12.64 | 000  |
| OPERATOR: Screed.....  | \$ 14.67 | 186  |
| OPERATOR: Shuttle Buggy.....   | \$ 14.06 | 198  |
| PAINTER: Spray .....   | \$ 23.30 | 000  |
| TRAFFIC CONTROL: Flagger .....   | \$ 12.30 | 000  |
| TRAFFIC CONTROL: Laborer-Cones/ Barricades/Barrels -<br>Setter/Mover/Sweeper ..... | \$ 12.15 | 000  |
| TRAFFIC SIGNALIZATION: Laborer.....  | \$ 12.72 | 140  |
| TRAFFIC SIGNALIZATION: Electrician.....  | \$ 23.41 | 426  |
| TRUCK DRIVER: Dump Truck.....  | \$ 15.00 | 000  |
| TRUCK DRIVER: Flatbed Truck .....  | \$ 14.91 | 107  |
| TRUCK DRIVER: Hydroseeder Truck .....  | \$ 16.74 | 000  |
| TRUCK DRIVER: Lowboy Truck .....   | \$ 18.98 | 000  |
| TRUCK DRIVER: Off the Road Truck .....   | \$ 12.38 | 000  |
| TRUCK DRIVER: Pickup Truck.....  | \$ 13.29 | 000  |
| TRUCK DRIVER: Water Truck.....   | \$ 13.19 | 146  |
| TRUCK DRIVER: Semi/Trailer Truck .....   | \$ 16.26 | 000  |

WELDERS - Receive rate prescribed for craft performing  
operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

**DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA**

U. S. Department of Labor

General Decision Number: GA170231 01/06/2017 GA231

Superseded General Decision Number: GA20160231

State: Georgia

Construction Type: Highway

County: Barrow County in Georgia.

**HIGHWAY CONSTRUCTION PROJECTS**

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.20 for calendar year 2017 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2017. The EO minimum wage rate will be adjusted annually.

Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Modification Number Publication Date

0 01/06/2017 SUGA2014-053 10/03/2016

|  | Rates    | Fringes |
|--|----------|---------|
| CARPENTER, Excludes Form Work .....                      | \$ 15.54 | 0.00    |
| CEMENT MASON/CONCRETE FINISHER .....                     | \$ 14.70 | 0.00    |
| FENCE ERECTOR .....                                      | \$ 16.54 | 0.00    |
| FORM WORKER .....  | \$ 15.26 | 2.08    |
| HIGHWAY/PARKING LOT STRIPING:                            |          |         |
| Operator (Striping Machine) \$ 12.37                     |          | 1.95    |
| INSTALLER – GUARDRAIL .....                              | \$ 15.65 | 0.00    |
| INSTALLER – SIGN .....                                   | \$ 13.03 | 0.00    |
| IRONWORKER, REINFORCING .....                            | \$ 14.64 | 0.00    |
| IRONWORKER, STRUCTURAL .....                             | \$ 15.12 | 0.00    |
| LABORER: Concrete Paving                                 |          |         |
| Joint Sealer .....                                       | \$ 17.66 | 0.00    |
| LABORER: Grade Checker .....                             | \$ 11.45 | 0.00    |
| LABORER: Mason Tender – Brick .....                      | \$ 11.61 | 0.00    |
| LABORER: Mason Tender -                                  |          |         |
| Cement/Concrete .....                                    | \$ 11.44 | 0.00    |
| LABORER: Pipelayer .....                                 | \$ 12.45 | 0.00    |
| LABORER: Asphalt (Includes Distributor, Raker, Screed,   |          |         |
| Shoveler, and Spreader) .....                            | \$ 13.15 | 0.00    |
| LABORER: Common or General, Includes Erosion Control. .. | \$ 10.61 | 0.00    |
| OPERATOR: Backhoe/Excavator/Trackhoe .....               | \$ 16.47 | 0.00    |

|  |          |      |
|--|----------|------|
| OPERATOR: Bobcat/Skid Steer/Skid Loader.....               | \$ 13.38 | 0.00 |
| OPERATOR: Broom/Sweeper .....                              | \$ 14.83 | 1.38 |
| OPERATOR: Bulldozer .....                                  | \$ 16.07 | 1.81 |
| OPERATOR: Compactor .....                                  | \$ 14.64 | 0.00 |
| OPERATOR: Concrete Saw.....                                | \$ 18.94 | 0.00 |
| OPERATOR: Crane .....                                      | \$ 21.06 | 4.24 |
| OPERATOR: Distributor.....                                 | \$ 17.00 | 1.93 |
| OPERATOR: Grader/Blade.....                                | \$ 18.42 | 5.04 |
| OPERATOR: Hydroseeder .....                                | \$ 15.20 | 0.00 |
| OPERATOR: Loader.....                                      | \$ 14.27 | 1.49 |
| OPERATOR: Mechanic.....                                    | \$ 19.54 | 0.00 |
| OPERATOR: Milling Machine Groundsman. ....                 | \$ 13.43 | 1.24 |
| OPERATOR: Milling Machine .....                            | \$ 16.00 | 1.31 |
| OPERATOR: Paver (Asphalt, Aggregate, and Concrete) .....   | \$ 16.50 | 2.93 |
| OPERATOR: Piledriver .....                                 | \$ 16.70 | 0.00 |
| OPERATOR: Roller.....                                      | \$ 16.04 | 0.00 |
| OPERATOR: Scraper .....                                    | \$ 12.64 | 0.00 |
| OPERATOR: Screed.....                                      | \$ 14.67 | 1.86 |
| OPERATOR: Shuttle Buggy.....                               | \$ 14.06 | 1.98 |
| PAINTER: Spray .....                                       | \$ 23.30 | 0.00 |
| TRAFFIC CONTROL: Flagger .....                             | \$ 12.58 | 0.00 |
| TRAFFIC CONTROL:   |          |      |
| Laborer-Cones/ Barricades/Barrels - Setter/Mover/Sweeper.. | \$ 13.59 | 0.00 |
| TRAFFIC SIGNALIZATION: Laborer.....                        | \$ 13.75 | 1.14 |
| TRAFFIC SIGNALIZATION: Electrician.....                    | \$ 23.33 | 4.19 |
| TRUCK DRIVER: Dump Truck.....                              | \$ 15.00 | 0.00 |
| TRUCK DRIVER: Flatbed Truck .....                          | \$ 14.91 | 1.07 |
| TRUCK DRIVER: Hydroseeder Truck. ....                      | \$ 16.74 | 0.00 |
| TRUCK DRIVER: Lowboy Truck. ....                           | \$ 18.98 | 0.00 |
| TRUCK DRIVER: Off the Road Truck .....                     | \$ 12.38 | 0.00 |
| TRUCK DRIVER: Pickup Truck.....                            | \$ 13.29 | 0.00 |
| TRUCK DRIVER: Water Truck. ....                            | \$ 13.19 | 1.46 |
| TRUCK DRIVER: Semi/Trailer Truck .....                     | \$ 16.26 | 0.00 |

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

**Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)). ATTACHMENT 5 TO EXHIBIT 8**

**STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION  
CONTRACT SPECIFICATIONS (EXECUTIVE ORDER 11246) (43 FR 14895)**

1. As used in these specifications:

a. “Covered area” means the geographical area described in the solicitation from which this contract resulted;

b. “Director” means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;

c. “Employer identification number” means the Federal Social Security number used on the Employer’s Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

d. “Minority” includes:

(i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);

(ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);

(iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and

(iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

3. If the Contractor is participating (pursuant to 41 CFR 60–4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor’s or Subcontractor’s failure to take good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered Construction contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minorities and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.

d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minority and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.

f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.

i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.

k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc. such opportunities.

m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

p. Conduct a review, at least annually of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).

10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

11. The Contractor shall not enter into any Contract or Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60–4.8.

14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

**ATTACHMENT 6 TO EXHIBIT 8**

**DISADVANTAGED BUSINESS ENTERPRISE PROGRAM  
CRITERIA FOR ACCEPTABILITY**

The purpose of this special provision is to establish criteria for acceptability of DBE firms for work performed on this contract. The intent is to ensure all participation counted toward fulfillment of the DBE goals is (1) real and substantial, (2) actually performed by viable, independent DBE owned firms, and (3) in accordance with the spirit of the applicable laws and regulations.

The policy of the Georgia Department of Transportation is to ensure compliance with Title VI of the Civil Rights Act of 1964, 49 Code of Federal Register, Part 26 and related statutes and regulations in all program activities.

To this end the Georgia Department of Transportation shall not discriminate on the basis of race, color, sex or national origin in the award, administration and performance of any Georgia Department of Transportation assisted contract or in the administration of its Disadvantaged Business Enterprise Program. The Georgia Department of Transportation shall take all necessary and reasonable steps to ensure nondiscrimination.

DBE payments and commitments for Federal-aid projects shall be separate and distinct and cannot be transferred or combined in any matter.

The DBE Goal specified in the contract will be a percentage representing the DBE Race Conscious Participation. The Contractor will strive to achieve an additional percentage in his/her contracts for all projects during the course of the current State Fiscal Year, in order to meet the overall Georgia Department of Transportation DBE goal.

**DBE DIRECTORY:** The Department has available a directory or source list to facilitate identifying DBEs with capabilities relevant to general contracting requirements and to particular solicitations. The Department will make the directory available to bidders and proposers in

their efforts to meet the DBE requirements. The directory or listing includes firms which the Department has certified to be eligible DBEs in accordance with 49 CFR Part 26.

**GOAL FOR PARTICIPATION:** If a percentage goal for DBE participation in this contract is set forth elsewhere in this proposal, the Contractor shall complete the DBE GOALS Form included in the proposal. The Contractor is encouraged to make every effort to achieve the goal set by the Department. However, if the Contractor cannot find sufficient DBE participants to meet the goal established by the Department, the Department will consider for award a proposal with less participation than the established goal if:

(A) The bidder can demonstrate no greater participation could be obtained. This should be well documented by demonstrating the Contractor's actions through good faith efforts. The following is a list of types of actions which the Department will consider as part of the Contractor's good faith efforts to obtain DBE participation. This is not intended to be a mandatory checklist nor intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases.

(1) Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBEs who have the capability to perform the work of the contract. The Contractor must solicit this interest within sufficient time to allow the DBEs to respond to the solicitation. The Contractor must determine with certainty if the DBEs are interested by taking appropriate steps to follow up initial solicitations.

(2) Selecting portions of the work to be performed by DBEs in order to increase the likelihood the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the Contractor might otherwise prefer to perform these work items with its own forces.

(3) Providing interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist DBEs participants in responding to a solicitation.

(4) (a) Negotiating in good faith with interested DBEs. Contractor(s) are responsible to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBEs that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBEs to perform the work.

(b) Contractor(s) using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of a Contractor to perform the work of a contract with its own organization does not relieve the Contractor of the responsibility to make good faith efforts. Contractors are not, however, required to accept higher quotes from DBEs if the price difference is excessive or unreasonable.

(5) Not rejecting DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The Contractor's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. nonunion employee status) are not legitimate causes for the rejection or non solicitation of bids in the Contractor's efforts to meet the project goal.

(6) Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by the contractor.

(7) Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services.

(8) Effectively using the services of available minority/women community organizations; minority/women Contractors' groups; local, state, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBE's.

(B) The participation proposed by the low bidder is not substantially less than the participation proposed by the other bidders on the same contract.

If no percentage goal is set forth in the proposal, the contractor may enter a proposed DBE participation. This voluntary DBE participation will count as race neutral DBE participation. Prime Contractor shall report race-neutral participation in accordance with the DBE Monthly Report requirements shown in this document.

To be eligible for award of this contract, All bidders will be required to submit the following information to the Department by the close of business on the 3rd working day following opening of the bid as a matter of bidder responsibility.

- (1) The names and addresses of DBE firms committed to participate in the Contract;
- (2) A description of the work each DBE will perform;
- (3) The dollar amount of the participation of each DBE firm participating;
- (4) Written documentation of the bidder's commitment to use a DBE subcontractor whose participation it submits to meet a contract goal;
- (5) Written confirmation from the DBE committed to participating in the contract, as provided in the prime contractor's commitment.
- (6) If the contract goal is not met, evidence of good faith efforts must be provided.

Failure by a bidder to furnish the above information may subject the bid to disqualification. Also failure by the bidder to submit satisfactory evidence of good faith efforts may subject the bid to disqualification.

Award of a contract by the Department to a Prime Contractor who has listed DBE participants with the bid may not constitute final approval by the Department of the listed DBE. The Department reserves the right to approve or disapprove a Disadvantaged firm after a review of the Disadvantaged firm's proposal participation. Payment to the Contractor under the contract may be withheld until final approval of the listed DBEs is granted by the Department.

If the Contractor desires to substitute a DBE in lieu of those listed in the proposal, a letter of concurrence shall be required from the listed DBE prior to approval of the substitution, unless this requirement is waived by the Department.

Agreements between bidder and a DBE in which promises not to provide Subcontracting quotations to other bidders are prohibited.

**DEFINITION:** For the purposes of this provision, the following definitions will apply: Disadvantaged Business Enterprise or DBE means a for-profit small business concern –

- (1) Ensuring at least 51 percent owned by one or more individuals who are both socially and economically disadvantaged or, in the case of a corporation, in which 51 percent of the stock is owned by one or more such individuals; and

(2) Whose management and daily business operations are controlled by one or more of the socially and economically disadvantaged individuals who own the business.

Good Faith Efforts means efforts to achieve a DBE goal or other requirement of this part which, by their scope, intensity, and appropriateness to the objective, can reasonably be expected to fulfill the program requirement.

Joint Venture means an association of a DBE firm and one or more other firms to carry out a single, for-profit business enterprise, for which the parties combine their property, capital, efforts, skills and knowledge, and in which the DBE is responsible for a distinct, clearly defined portion of the work of the contract and whose share in the capital contribution, control, management, risks, and profits of the joint venture are commensurate with its ownership interest.

Socially and Economically Disadvantaged Individual means any individual who is a citizen (or lawfully admitted permanent resident) of the United States and who is –

(1) Any individual who the Department finds to be a socially and economically disadvantaged individual on a case-by-case basis.

(2) Any individual in the following groups, members of which are reputably presumed to be socially and economically disadvantaged.

(i) “Black Americans,” which includes persons having origins, in any of the Black racial groups of Africa;

(ii) “Hispanic Americans,” which includes persons of Mexican, Puerto Rican, Cuban, Dominican, Central or South American, or other Spanish or Portuguese culture or origin, regardless of race;

(iii) “Native Americans,” which includes persons who are American Indians, Eskimos, Aleuts, or Native Hawaiians;

(iv) “Asian-Pacific Americans,” which includes persons whose origins are from Japan, China, Taiwan, Korea, Burma (Myanmar), Vietnam, Laos, Cambodia (Kampuchea), Thailand, Malaysia, Indonesia, the Philippines, Brunei, Samoa, Guam, the U.S. Trust Territories of the Pacific Islands (Republic of Palau), the Commonwealth of the Northern Marianas Islands, Macao, Fiji, Tonga, Kiribati, Juvalu, Nauru, Federated States of Micronesia, or Hong Kong;

(v) “Subcontinent Asian Americans,” which includes persons whose origins are from India, Pakistan, Bangladesh, Bhutan, the Maldives Islands, Nepal or Sri Lanka;

(vi) Women;

(vii) Any additional groups whose members are designated as socially and economically disadvantaged by the SBA, at such time as the SBA designation becomes effective.

(3) GDOT will presume that such persons are socially and economically disadvantaged only to the extent permitted by applicable federal law.

Race-conscious measure is one focused specifically on assisting only DBEs, including women-owned DBEs.

Race-neutral measure is one being, or can be, used to assist all small businesses. For the purposes of this part, race-neutral includes gender-neutrality.

**DISCRIMINATION PROHIBITED:** No person shall be excluded from participation in, denied the benefits of, or otherwise discriminated against in connection with the award and performance of this contract on the grounds of race, color, sex or national origin.

The following assurance becomes a part of this contract and must be included in and made a part of each subcontract the prime contractor enters into with their subcontractors (49 CFR 26.13):

“The contractor, and/or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT – assisted contracts. Failure by the contractor to carry out these requirements is (breach) of this contract which may result in the termination of this contract or such other remedy as the Department deems appropriate.

**Failure to Achieve Requirements:** Periodic reviews shall be made by the Department to determine the extent of compliance with the requirements set forth in this provision. If the Contractor is found to be in noncompliance, further payments for any work performed may be withheld until corrective action is taken. If corrective action is not taken, it may result in termination of this contract.

Participation will be counted toward fulfillment of the DBE goal as follows:

(A) When a DBE participates in a contract, the Contractor counts only the value of the work actually performed by the DBE toward DBE goals.

(1) Count the entire amount of the portion of a construction contract (or other contract not covered by paragraph (A) (2) of this section) performed by the DBE’s own forces. Include the cost of supplies and materials obtained by the DBE for the work of the contract, including supplies purchased or equipment leased by the DBE (except supplies and equipment the DBE subcontractor purchases or leases from the prime contractor or its affiliate).

(2) Count the entire amount of fees or commissions charged by a DBE firm for providing a bona fide service, such as professional, technical consultant, or managerial services, or for providing bonds or insurance specifically required for the performance of a DOT-assisted contract, toward DBE goals, provided the Department determines the fee is reasonable and not excessive as compared with fees customarily allowed for similar services.

(3) When a DBE subcontracts part of the work of its contract to another firm, the value of the subcontracted work may be counted toward DBE goals only if the DBE’s subcontractor is itself a DBE. Work that a DBE subcontracts to a non-DBE firm does not count toward DBE goals.

(B) When a DBE performs as a participant in a joint venture, count a portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work of the contract the DBE performs with own forces toward DBE goals.

(C) Count expenditures to a DBE contractor toward DBE goals only if the DBE is performing a commercially useful function on that contract.

(1) A DBE performs a commercially useful function when responsible for execution of the work of the contract and carrying out responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the DBE must also be responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself.

(2) A DBE does not perform a commercially useful function if their role is limited to being an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of DBE participation.

(3) If a DBE does not perform or exercise responsibility for at least 30 percent of the total cost of their contract with their own work force, or the DBE subcontracts a greater portion of the work of a contract than would be expected on the basis of normal industry practice for the type of work involved, the Department will presume the DBE is not performing a commercially useful function.

(4) When a DBE is presumed not to be performing a commercially useful function as provided in paragraph (C) (3) of this section, the DBE may present evidence to rebut this presumption.

(5) The Department's decisions on commercially useful function matters are subject to review by the US DOT, but are administratively appealable to the US DOT.

(D) The following factors are to be used in determining whether a DBE trucking company is performing a commercially useful function:

(1) The DBE must be responsible for the management and supervision of the entire trucking operation for which they are responsible on a particular contract, and there cannot be a contrived arrangement for the purpose of meeting DBE goals.

(2) The DBE must itself own and operate at least one fully licensed, insured, and operational truck used on the contract.

(3) The DBE receives credit for the total value of the transportation services it provides on the contract using trucks it owns, insures, and operates using drivers it employs.

(4) The DBE may lease trucks from another DBE firm, including an owner/operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provided on the contract.

(5) The DBE may also lease trucks from a non-DBE and is entitled to credit only for the fee or commission it receives as a result of the lease arrangement. The DBE does not receive

credit for the total value of the transportation services provided by the lessee, since these services are not provided by a DBE.

(6) For purposes of this paragraph (D), a lease must indicate the DBE has exclusive use of and control over the truck. This does not preclude the leased truck from working for others during the term of the lease with the consent of the DBE, so long as the lease gives the DBE absolute priority for use of the leased truck. Leased trucks must display the name and identification number of the DBE.

(E) Count expenditures with DBEs for materials or supplies toward DBE goals as provided in the following:

(1) (i) If the materials or supplies are obtained from a DBE manufacturer, count 100 percent of the cost of the materials or supplies toward DBE goals.

(ii) For purposes of this paragraph, a manufacturer is a firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract and of the general character described by the specifications.

(2) (i) If the materials or supplies are obtained from a DBE regular dealer, count 60 percent of the cost of the materials or supplies toward DBE goals.

(ii) For purposes of this section, a regular dealer is a firm owning, operating, or maintaining a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described by the specifications and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business.

(A) To be a regular dealer, the firm must be an established, regular business engaging, as its principal business and under its own name, in the purchase and sale or lease of the products in question.

(B) A person may be a regular dealer in such bulk items as petroleum products, steel, cement, gravel, stone, or asphalt without owning, operating, or maintaining a place of business as provided in this paragraph (E)(2)(ii) if the person both owns and operates distribution equipment for the products. Any supplementing of regular dealers' own distribution equipment shall be by a long-term lease agreement and not on an ad hoc or contract-by-contract basis.

(C) Packagers, brokers, manufacturers' representatives, or other persons who arrange or expedite transactions are not regular dealers within the meaning of this paragraph (E)(2).

(3) With respect to materials or supplies purchased from a DBE which is neither a manufacturer nor a regular dealer, count the entire amount of fees or commissions charged for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials or supplies required on a job site, toward DBE goals, provided you determine the fees to be reasonable and not excessive as compared with fees customarily allowed for similar services. Do not count any portion of the cost of the materials and supplies themselves toward DBE goals, however.

(4) Do not count the participation of a DBE subcontractor toward the prime contractor's DBE achievements until the amount being counted toward the goal has been paid to the DBE.

(5) No participation will be counted not in compliance with Special Provision entitled "Criteria for Acceptability" which is a part of this contract or with any provisions included in 49 CFR Part 26.

(6) If the contract amount overruns, the contractor will not be required to increase the dollar amount of DBE participation. If the contract amount under runs, the contractor will not be allowed to under run the dollar amount of DBE participation except when the DBE subcontracted items themselves under run.

## REPORTS

A: The contractor shall submit a "DBE Participation Report" on this contract monthly which shall include the following:

1. The name of each DBE participating in the contract.
2. A description of the work to be performed, materials, supplies, and services provided by each DBE.
3. Whether each DBE is a supplier, subcontractor, owner/operator, or other.
4. The dollar value of each DBE subcontract or supply agreement.
5. The actual payment to date of each DBE participating in the contract.
6. The report shall be updated by the Prime Contractor whenever the approved DBE has performed a portion of the work that has been designated for the contract. Copies of this report should be transmitted promptly to the Engineer. Failure to submit the report within 30 calendar days following the end of the month may cause payment to the contractor to be withheld.
7. The Prime Contractor shall notify the Project Engineer at least 24 hours prior to the time the DBE commences working on the project. The DBE must furnish supervision of the DBE portion of the work, and the person responsible for this supervision must report to the Project Engineer when they begin work on the project. They must also inform the Project Engineer when their forces will be doing work on the project.

B. In order to comply with 49 CFR 26.11, the Prime Contractor shall submit documentation regarding all payments made from the Prime to all DBE subcontractors on federal aid projects in the form of copies of cancelled checks or notarized electronic documentation which validates said payments made on the DBE Monthly Participation Reports. This information shall be required monthly and submitted with the DBE Monthly Participation Report.

C. Failure to respond within the time allowed in the request will be grounds for withholding all payments on all Contracts.

**SUBSTITUTION OF DBEs:** The Contractor shall make reasonable efforts to replace a DBE Subcontractor unable to perform work for any reason with another DBE. The Department shall approve all substitutions of Subcontractors in order to ensure the substitute firms are eligible DBEs.

**CERTIFICATION OF DBEs:** To ensure the DBE Program benefits only firms owned and controlled by Disadvantaged Individuals, the Department shall certify the eligibility of DBEs and joint ventures involving DBEs named by bidders.

Questions concerning DBE Certification/Criteria should be directed to the EEO Office at (404) 631-1972.

**ATTACHMENT 7 TO EXHIBIT 8**

**DEBARMENT AND SUSPENSION CERTIFICATION**

1. By signing and submitting its proposal or bid, and by executing the Agreement or and Contract, each prospective Design-Build Team member (at all tiers) shall be deemed to have signed and delivered the following certification:

The undersigned certifies to the best of its knowledge and belief, that it and its principals:

a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any federal department or agency;

b. Have not within a 3-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state or local) transaction or contract under a public transaction; violation of federal or state antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (federal, state or local) with commission of any of the offenses enumerated in paragraph 1b of this certification; and

d. Have not within a 3-year period preceding this application/proposal had one or more public transactions (federal, state or local) terminated for cause or default.

2. Where the prospective Design-Build Team member is unable to certify to any of the statements in this certification, such Person shall attach a certification to its proposal or bid, or shall submit it with the executed Agreement or Contract, stating that it is unable to provide the certification and explaining the reasons for such inability.

**ATTACHMENT 8 TO EXHIBIT 8**

**CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING**

By signing and submitting its proposal or bid, and by executing the Agreement or any Contract, each prospective Design-Build Team and Contractor (at all tiers) shall be deemed to have signed and delivered the following:

1. The prospective Design-Build Team/Contract certifies, to the best of its knowledge and belief, that:

a. No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of **ANY** federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.

b. If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any federal agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with **THIS** Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions, and shall include a copy of said form in its proposal or bid, or submit it with the executed Agreement or Contract.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. § 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. Design-Build Team/Contractor shall require that the language of this certification be included in all lower tier Contracts which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

4. The undersigned certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the undersigned understands and agrees that the provisions of 31 U.S.C. §3801, et seq., apply to this certification and disclosure, if any.

[Note: Pursuant to 31 U.S.C. § 1352(c)(1)-(2)(A), any person who makes a prohibited expenditure or fails to file or amend a required certification or disclosure form shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each expenditure or failure.]

**NOTE: DESIGN-BUILD TEAM AND EACH CONTRACTOR IS REQUIRED, PURSUANT TO FEDERAL LAW, TO INCLUDE THE ABOVE LANGUAGE IN CONTRACTS OVER \$100,000**

AND TO OBTAIN THIS LOBBYING CERTIFICATE FROM EACH CONTRACTOR BEING PAID \$100,000 OR MORE.

**ATTACHMENT 9 TO EXHIBIT 8**

**RESERVED**

**ATTACHMENT 10 TO EXHIBIT 8**

**COMPLIANCE WITH BUY AMERICA REQUIREMENTS**

Design-Build Team shall comply with the Federal Highway Administration (FHWA) Buy America Requirement in 23 CFR 635.410, which permits FHWA participation in this Agreement only if domestic steel and iron will be used on the Project. To be considered domestic, all steel and iron used and all products manufactured from steel and iron must be produced in the United States and all manufacturing processes, including application of a coating, for these materials must occur in the United States. Coating includes all processes that protect or enhance the value of the material to which the coating is applied. This requirement does not preclude a minimal use of foreign steel and iron materials, provided the cost of such materials does not exceed 0.1% of the contract price under the Agreement.

Concurrently with execution of the Agreement, Design-Build Team has completed and submitted, or shall complete and submit, to GDOT a Buy America Certificate, in the format below. After submittal, Design-Build Team is bound by its original certification.

A false certification is a criminal act in violation of 18 U.S.C. § 1001. Should this Agreement be investigated, Design-Build Team has the burden of proof to establish that it is in compliance.

At Design-Build Team's request, GDOT may, but is not obligated to, seek a waiver of Buy America requirements if grounds for the waiver exist. However, Design-Build Team certifies that it will comply with the applicable Buy America requirements if a waiver of those requirements is not available or not pursued by GDOT. A request for a waiver shall be treated as a Change Request under Article 14.2 of the Agreement.

**BUY AMERICA CERTIFICATE**

**Insert Completed Form J in Executed Version**

**FORM J**

**Buy America Certification**

The undersigned Proposer hereby certifies on behalf of itself and all contractors (at all tiers) the following:

- a. Proposer shall comply with the Federal Highway Administration ("FHWA") Buy America Requirements of 23 CFR 635.410, which permits FHWA participation in the DBA only if domestic steel and iron will be used on the Project. To be considered domestic, all steel and iron used and all products manufactured from steel and iron must be produced in the United States and all manufacturing processes, including application of a coating, for these materials must occur in the United States. Coating includes all processes that protect or enhance the value of the material to which the coating is applied. This requirement does not preclude a minimal use of foreign steel and iron materials, provided the cost of such materials does not exceed 0.1% of the design-build contract price.
- b. A false certification is a criminal act in violation of 18 U.S.C. 1001. Should this certification be investigated, Proposer has the burden of proof to establish that it is in compliance.
- c. At Proposer's request, GDOT may, but is not obligated to, seek a waiver of Buy America requirements from FHWA if grounds for the waiver exist. However, Proposer certifies that it will comply with the applicable Buy America requirements if a waiver of those requirements is not available or not pursued by GDOT.

Date: August 25, 2017

Signature: 

Title: Daniel P. Garcia, President

Proposer's Name: C. W. Matthews Contracting Co., Inc.

## ATTACHMENT 11 TO EXHIBIT 8

### COMPLIANCE WITH THE CARGO PREFERENCE ACT

The Cargo Preference Act (CPA) establishes certain requirements for the use of privately owned United States-flag commercial vessels in transporting equipment, materials, and commodities by ocean vessel. Contractors are required to comply with the CPA requirements and 46 CFR 381 and are required to insert the substance of these provisions into any subcontracts issued pursuant to this contract.

#### **Cargo Preference Act Requirements**

All Federal-aid projects shall comply with 46 CFR 381.7 (a)-(b) as follows:

(a) **Agreement Clauses.** Use of United States-flag vessels:

- (1) Pursuant to Pub. L. 664 (43 U.S.C. 1241(b)) at least 50 percent of any equipment, materials or commodities procured, contracted for or otherwise obtained with funds granted, guaranteed, loaned, or advanced by the U.S. Government under this agreement, and which may be transported by ocean vessel, shall be transported on privately owned United States-flag commercial vessels, if available.
- (2) Within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (a)(1) of this section shall be furnished to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

(b) **Contractor and Subcontractor Clauses.** Use of United States-flag vessels: The contractor agrees:

- (1) To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the Gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.
- (2) To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b) (1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.
- (3) To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.

The CPA requirements would be appropriate for oceanic shipments of materials or equipment that is intended for use on a specific Federal-aid project, such as a precast concrete structural members, fabricated structural steel, tunnel boring machines, or large-capacity cranes.

The CPA requirements are not applicable for goods or materials that come into inventories independent of an FHWA funded-contract. For example, the requirements would not apply to shipments of Portland cement, asphalt cement, or aggregates, as industry suppliers and contractors use these materials to replenish existing inventories. In general, most of the materials used for highway construction originate from existing inventories and are not acquired solely for a specific Federal-aid project.

A test for whether CPA requirements apply or do not apply to shipped goods or materials would be if the goods or materials are what one would consider to be common inventory supplies for highway construction contractor, then CPA would **not apply**. If the materials or goods are considered to be supplies one would consider to be not common supplies of a highway construction contractor then CPA would **apply**.

**EXHIBIT 9**

**MILESTONE SCHEDULE**

| Milestone   | Deadline                                 |
|---|--|
| Interim Completion – 50' North of Hamilton Mill Road Bridge to Station 518+00 | 698 Days after NTP 1                     |
| Interim Completion – Station 518+00 to Station 725+60                         | 723 Days after NTP 1                     |
| Interim Completion – Station 725+60 to Station 831+20                         | 917 Days after NTP 1                     |
| Substantial Completion Deadline   | 944 days after the date GDOT issues NTP1 |
| Final Acceptance Deadline   | 90 days after Substantial Completion     |
|   |  |
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|   |  |
| NOTE: See Exhibit 2 for stationing.   |  |

**EXHIBIT 10**

**RESERVED**

**EXHIBIT 11**

**HAZARDOUS MATERIALS RISK ALLOCATION TERMS**

1. Design-Build Team shall be solely responsible for Hazardous Materials Management, including all required remediation and disposal of Hazardous Materials that constitute Design-Build Team Releases of Hazardous Materials or which are otherwise with respect to any Additional Properties or Project Specific Locations, Design-Build Team shall be responsible for all Hazardous Materials Management for Design-Build Team Release(s) of Hazardous Materials or with respect to Additional Properties, even if the required Hazardous Materials Management extends beyond the end of the Term or Final Acceptance of the Work.

2. Other than a Design-Build Team Releases of Hazardous Materials or with respect to any Additional Properties or Project Specific Locations, GDOT shall, at its own expense shall manage, treat, handle, store, remediate, remove, transport (where applicable), investigate, oversee and dispose of such Hazardous Materials in accordance with applicable Law and Governmental Approvals or otherwise enter into a Supplement Agreement with the Design-Build Team, or order such Work pursuant to Directive Letter (provided that GDOT may not require any long term monitoring of Hazardous Materials under any such Directive Letter), with respect to same.

3. Notwithstanding the aforementioned or anything to the contrary in the Agreement, none of the following costs and expenses shall be chargeable to or reimbursed by GDOT:

(a) Costs and expenses to the extent attributable to Design-Build Team Releases of Hazardous Materials;

(b) Delay and disruption costs and expenses, except to the extent expressly set forth under the Agreement;

(c) Costs and expenses that could be avoided by the exercise of commercially reasonable efforts to mitigate and reduce cost; and

(d) Attorney's fees or other expenses incurred by Design-Build Team in demonstrating or determining the proportionate responsibility between the parties as to Design-Build Team Releases of Hazardous Materials, GDOT Releases of Hazardous Materials, Pre-existing Hazardous Materials, and/or Hazardous Materials due to any third party.

4. Nothing contained herein shall be interpreted to limit Design-Build Team's obligations with respect to Articles 7.8 or 7.9 of the Agreement.

**EXHIBIT 12**

**RESERVED**

**EXHIBIT 13**

**RESERVED**

**EXHIBIT 14**

**DESIGN-BUILD TEAM'S DBE COMMITMENTS LIST**

**FORM I**

**DBE Certification**

**DISADVANTAGED BUSINESS ENTERPRISES REQUIREMENTS**

The following Project goal for participation by DBEs is established for professional services and construction work:

**DBE**

**13% of the overall Project design and construction costs, with respect to the race conscious participation by the Design-Build Team.**

**DBE Certification**

By signing below, the Proposer certifies that (1) Design-Build Team will provide a good faith effort to meet the goal; and (2) Design-Build Team will direct its efforts toward the utilization of DBE firms in both design and construction components of the Project, (3) DB Team will submit a DBE Commitments List meeting the requirements set forth in Attachment 6 to Exhibit 8 to the DB Agreement, (4) DB Team will submit monthly and annual summary reports of the DBE goal attainment on the Project, identifying the components of the Project on which DBE firms are/have been utilized See page 2 of this form for Commitments List requirements.

Failure to submit the DBE Commitments List will be considered a breach of the requirements of the RFP. As a result, the Proposal Bond provided by the Proposer will become property of GDOT and the Proposer will be precluded from participating in any reprocurement of the DBA for the Project.

A handwritten signature in blue ink, appearing to read "D. Garcia", is written over a horizontal line.

[name]

Daniel P. Garcia, President

[title]

The DBE firms to be utilized as counting toward the proposed goal must be listed on this form, along with their addresses, type of work and the amount to be paid to each of the certified DBE firms. The amount entered will not necessarily be the contract amount, but must be the actual amount that will be paid to the DBE firm. In the case of a DBE supplier, the amount paid and 60% of that amount both will be entered; and only the 60% figure should be added to the total. An example of this is shown in the example chart:

| Vender Number | Company Name and Address (City and State) | Type of Work         | *Work Code | Race Neutral | Race Conscious | Amount                               |
|---------------|---|----------------------|------------|--------------|----------------|--------------------------------------|
|               | ABC Oil Company<br>Atlanta, GA            | Diesel Fuel Supplier |            |              |                | \$80,000.00<br>0 (60% = \$48,000.00) |

The Contractor shall indicate for each DBE and Type of Work whether the DBE Participant is Race Neutral or Race Conscious by placing a checkmark in the appropriate column.

**PLEASE NOTE:** For 60% of the amount paid to a DBE supplier to be eligible to count toward fulfilling the DBE goal, the supplier must be an established "regular dealer" in the product involved, and not just a broker. A "regular dealer" would normally sell the product to several customers and would usually have product inventory on hand.

DBE Commitments List

| Vendor Number  | Company Name<br>and Address<br>(City and State) | Type of Work            | *Work<br>Code | Race<br>Neutral | Race<br>Conscious | Amount       |
|----------------|---|-------------------------|---------------|-----------------|-------------------|--------------|
| 2FO845         | Four Seasons Trucking, Inc.<br>Decatur GA       | Haul Liquid Asphalt     | 400b          |                 | X                 | \$133,677.12 |
| 2PU018         | Derrick Pugh, Inc.<br>Decatur, GA               | Haul Liquid Asphalt     | 400b          |                 | X                 | \$129,745.44 |
| 2MO265         | Tranquility Carriers Inc.<br>Conyers, GA        | Haul Liquid Asphalt     | 400b          |                 | X                 | \$129,745.44 |
| 00000000011686 | Palmer, Incorporated<br>Clermont, GA            | Haul Asphalt Aggregates | 800a          |                 | X                 | \$343,619.00 |
| 2JO085         | Joe Dirt Hauling<br>Commerce, GA                | Haul Asphalt            | 400a          |                 | X                 | \$423,960.00 |
| 2JS850         | JSV Trucking<br>Lawrenceville, GA               | Haul Asphalt            | 400a          |                 | X                 | \$423,960.00 |
| 2MA485         | M.A.R. Trucking Inc.<br>Snellville, GA          | Haul Asphalt            | 400a          |                 | X                 | \$423,960.00 |
| 2LI492         | Lincoln Trucking, Inc.<br>Snellville, GA        | Haul Asphalt            | 400a          |                 | X                 | \$423,960.00 |
| 00000000011686 | Palmer, Incorporated<br>Clermont, GA            | Haul Asphalt            | 400a          |                 | X                 | \$423,960.00 |
| 2LA068         | Ladd Trucking<br>Murrayville,<br>GA             | Haul Asphalt            | 400a          |                 | X                 | \$353,300.00 |
| 00000000011642 | Kathy Anderson Trucking, Inc.<br>Lula, GA       | Haul Asphalt            | 400a          |                 | X                 | \$353,300.00 |
| 2HA565         | Harrell Hauling, Inc.<br>Oxford, GA             | Haul Asphalt            | 400a          |                 | X                 | \$353,300.00 |
| 2SU370         | Summit Trucking, Inc.<br>Marietta, GA           | Haul Asphalt            | 400a          |                 | X                 | \$353,300.00 |
| 2JO085         | Joe Dirt Hauling<br>Commerce, GA                | Haul Millings           | 432a          |                 | X                 | \$74,160.00  |
| 2JS850         | JSV Trucking<br>Lawrenceville, GA               | Haul Millings           | 432a          |                 | X                 | \$74,160.00  |

| Vendor Number  | Company Name<br>and Address<br>(City and State)                   | Type of Work                  | *Work<br>Code | Race<br>Neutral | Race<br>Conscious | Amount         |
|----------------|---|-------------------------------|---------------|-----------------|-------------------|----------------|
| 2MA485         | M.A.R. Trucking Inc.<br>Snellville, GA                            | Haul Millings                 | 432a          |                 | X                 | \$74,160.00    |
| 2LI492         | Lincoln Trucking, Inc.<br>Snellville, GA                          | Haul Millings                 | 432a          |                 | X                 | \$74,160.00    |
| 00000000011686 | Palmer, Incorporated<br>Clermont, GA                              | Haul Millings                 | 432a          |                 | X                 | \$74,160.00    |
| 2LA068         | Ladd Trucking<br>Murrayville, GA                                  | Haul Millings                 | 432a          |                 | X                 | \$61,800.00    |
| 00000000011642 | Kathy Anderson Trucking, Inc.<br>Lula, GA                         | Haul Millings                 | 432a          |                 | X                 | \$61,800.00    |
| 2HA565         | Harrell Hauling, Inc.<br>Oxford, GA                               | Haul Millings                 | 432a          |                 | X                 | \$61,800.00    |
| 2SU370         | Summit Trucking, Inc.<br>Marietta, GA                             | Haul Millings                 | 432a          |                 | X                 | \$61,800.00    |
| 00000000011686 | Palmer, Incorporated<br>Clermont, GA                              | Haul Soil within Project      | 205a          |                 | X                 | \$1,520,000.00 |
| 00000000011686 | Palmer, Incorporated<br>Clermont, GA                              | Haul GAB                      | 310a          |                 | X                 | \$2,701,000.00 |
| 00000000011686 | Palmer, Incorporated<br>Clermont, GA                              | Haul Rip Rap & Other Aggr     | 603a          |                 | X                 | \$170,000.00   |
| 2CY035         | Cymco 7, Inc.<br>Decatur, GA                                      | Reinforcing Steel             | 511           |                 | X                 | \$499,400.00   |
| 2MA736         | Martin-Pinero Construction Project<br>Management, LLC Atlanta, GA | Misc Concrete (Metal Decking) | 441           |                 | X                 | \$176,845.00   |
| 2CG050         | C&G Concrete Construction Co., Inc.<br>East Point, GA             | Misc Concrete (Flatwork)      | 441           |                 | X                 | \$171,000.00   |
| 2CE150         | Celebrity Fence Company, Inc.<br>Ellenwood, GA                    | Fence                         | 643           |                 | X                 | \$111,563.00   |
| 2MA699         | Jake Martin & Son Contractors, Inc.<br>Gainesville, GA            | Grassing                      | 700           |                 | X                 | \$544,190.00   |
| 2CL375         | Clean Water Consultants, Inc.<br>Winder, GA                       | Misc Erosion Control          | 163           |                 | X                 | \$494,905.00   |
| 2BO250         | Bonn J Contracting Inc. of Florida<br>Chuluota, FL                | MSE Wall Construction         | 626           |                 | X                 | \$904,500.00   |

| Vendor Number  | Company Name<br>and Address<br>(City and State)       | Type of Work  | *Work<br>Code      | Race<br>Neutral | Race<br>Conscious | Amount       |
|----------------|---|---|--------------------|-----------------|-------------------|--------------|
| 2HI351         | Highway Services, Inc.<br>Douglasville, GA            | Highway Signs                                       | 636                |                 | X                 | \$59,362.00  |
| 2HI351         | Highway Services, Inc.<br>Douglasville, GA            | Traffic Control (Temp Pvm<br>Markings)              | 150                |                 | X                 | \$50,000.00  |
| 00000000011638 | SRC Ventures, LLC<br>Brooks, GA                       | Sound Wall & MSE Wall Anti-<br>Graffiti Coating     | 624                |                 | X                 | \$707,300.00 |
| 00000000011638 | SRC Ventures, LLC<br>Brooks, GA                       | Sound Wall Anti-Graffiti<br>Coating                 | 624                |                 | X                 | \$605,000.00 |
| 2SA130         | Safety Signal Co., Inc<br>Union City, GA              | Highway Signs (Supplier)                            | 636                |                 | X                 | \$49,467.60  |
| 2CA392         | Carlson Construction Services, LLC<br>Austell, GA     | Fiber Optic Systems                                 | 935                |                 | X                 | \$471,589.00 |
| 2GC445         | GC Electrical Solutions, LLC<br>Riverdale, GA         | ATMS (Supplier)                                     | 940                |                 | X                 | \$255,907.80 |
| 2JJ007         | JJ Dal Supply Company, LLP<br>Tucker, GA              | ATMS (Supplier)                                     | 940                |                 | X                 | \$51,982.80  |
| 2LO352         | Long Engineering, Inc.<br>Atlanta, GA                 | Independent QA Reviews -<br>Minor Bridge Design     | Area Class<br>4.01 |                 | X                 | \$412,156.00 |
| " "            | " "   | Independent QA Reviews - H<br>& H Studies (Bridges) | Area<br>Class4.04  |                 | X                 |              |
| " "            | " "   | Update Survey Database - Land<br>Surveying          | Area Class<br>5.01 |                 | X                 |              |
| " "            | " "   | Update Survey Database -<br>Engineering Surveying   | Area Class<br>5.02 |                 | X                 |              |
| " "            | " "   | Update Survey Database -<br>Geodetic Surveying      | Area Class<br>5.03 |                 | X                 |              |
| " "            | " "   | Subsurface Utility Engineering -<br>QL-B/A & UIA    | Area Class<br>5.08 |                 | X                 |              |
| " "            | " "   | QA Reviews - Comprehensive<br>Monitoring Program    | Area Class<br>9.01 |                 | X                 |              |
| 2RA535         | Ranger Consulting, Inc.<br>Rome, GA                   | Drilling for Bridge Foundation<br>Studies           | Area Class<br>6.02 |                 | X                 | \$38,425.00  |
| 2CT055         | CTCS, Inc. Traffic Control Specialists<br>Atlanta, GA | Traffic Control for BFI Drilling                    | 150                |                 | X                 | \$44,351.00  |

| Vendor Number        | Company Name<br>and Address<br>(City and State)  | Type of Work                          | *Work<br>Code       | Race<br>Neutral | Race<br>Conscious | Amount                     |
|----------------------|--|---------------------------------------|---------------------|-----------------|-------------------|----------------------------|
| 2NE667               | New South Associates, Inc.<br>Stone Mountain, GA | Review History Special Studies        | Area Class<br>1.06b |                 | X                 | \$10,000.00                |
| " "                  | " "  | Review Archaeology Special<br>Studies | Area Class<br>1.06f |                 | X                 |                            |
|                      |  |                                       |                     |                 |                   |                            |
| TOTAL DBE COMMITMENT |  |                                       |                     |                 |                   | <del>\$14,998,731.20</del> |

\$14,898,306.20

**EXHIBIT 15**

**RESERVED**

**EXHIBIT 16**

**RESERVED**

**EXHIBIT 17**

**RESERVED**

**EXHIBIT 18**

**MEASURES OF LIQUIDATED DAMAGES and NONREFUNDABLE DEDUCTIONS**

**1.1 For Late Interim Completion(s), Late Substantial Completion, and Late Final Acceptance**

(a) Liquidated damages for late Interim Completion(s) shall equal \$5,089 per day for each day that the Interim Completion Date(s) is later than the Interim Completion Deadline(s), as the Interim Completion Deadline(s) may be extended pursuant to this Agreement.

(b) Liquidated damages for late Substantial Completion for the Project shall equal \$5,089 per day for each day that the Substantial Completion Date is later than the Substantial Completion Deadline, as the Substantial Completion Deadline may be extended pursuant to this Agreement.

(c) Liquidated damages for late Final Acceptance shall equal \$5,089 per day for each day that the date of Final Acceptance is later than the Final Acceptance Deadline, as the Final Acceptance Date may be extended pursuant to this Agreement.

(d) Liquidated damages on account of any failure to achieve Final Acceptance by the Final Acceptance Date shall not be in cumulative and addition to liquidated damages under subpart (a) above where Substantial Completion is not achieved by the Substantial Completion Deadline, provided that where any such liquidated damages under subpart (a) cease to then accrue as a result of achieving Substantial Completion, and the Final Acceptance Date, as may thereafter be revised is not met, subpart (b) shall then apply.

**1.2 Incident Based Liquidated Damages**

Liquidated damages upon the occurrence of the following, which shall not be cumulative, for any single occurrence. Where there are multiple incidents as set forth below contributing to a single occurrence, the highest applicable incident based liquidated damages relative to such occurrence shall apply.

- |          |   |                          |
|----------|---|--------------------------|
| <b>1</b> | Failure to reopen lanes specified in Volume 2 Section 18.3.1.1.2.1.   | <b>\$5,000 per hour*</b> |
| <b>2</b> | Failure to reopen lanes specified in Volume 2 Section 18.3.1.1.2.2.   | <b>\$5,000 per hour*</b> |
| <b>3</b> | Failure to reopen lanes specified in Volume 2 Section 18.3.1.1.2.3.   | <b>\$5,000 per hour*</b> |
| <b>4</b> | Failure to reopen lanes specified in Volume 2 Section 18.3.1.1.2.4.   | <b>\$5,000 per hour*</b> |
| <b>5</b> | Failure to reopen lanes specified in Volume 2 Section 18.3.1.1.2.5.   | <b>\$5,000 per hour*</b> |
| <b>6</b> | Failure to reopen lanes specified in Volume 2 Section 18.3.1.1.2.6.A. | <b>\$3,000 per hour*</b> |

- 7 Failure to reopen lanes specified in Volume 2 Section 18.3.1.1.2.6.B. **\$3,000 per day\***

\*In addition to liquidated damages, DB Team shall be liable for any fines assessed against GDOT as a result of the any noncompliance event as provided herein.

### 1.3 Incident Based Nonrefundable Deductions

Nonrefundable deductions upon the occurrence of the following, which shall not be cumulative, for any single occurrence. Where there are multiple incidents as set forth below contributing to a single occurrence, the highest applicable incident based liquidated damages relative to such occurrence shall apply.

- |    |   |  |
|----|---|--|
| 1  | Causing environmental damage in contravention of Section 4 of the Technical Provisions and the latest approved Environmental Documents.   | <b>\$500 per occurrence*</b>               |
| 2  | Failure to establish and maintain traffic in accordance with an approved Traffic Management Plan in accordance with Design-Build Team's Work, including in Related Transportation Facilities and GP traffic lanes as required by <u>Section 18.2</u> and <u>Section 18.3</u> of the Technical Provisions. | <b>\$2,500 per occurrence</b>              |
| 3  | Failure to follow the approved procedures outlined in the Utility Emergency Procedures Plan as required in Section 6 of Technical Provisions.   | <b>\$1,000 per occurrence</b>              |
| 4  | Damage caused by the DB Team to GDOT ITS fiber optic trunk.   | <b>\$10,000 per occurrence**</b>           |
| 5  | Damage caused by the DB Team to GDOT ITS fiber optic drop cable or electrical power service.  | <b>\$1,000 per occurrence**</b>            |
| 6  | Damage caused by the DB Team to GDOT ITS device (camera, radar, VSLs, etc.).  | <b>\$1,000 per occurrence**</b>            |
| 7  | Damage caused by the DB Team to GDOT ITS device closure (camera, radar, VSLs, etc.)   | <b>\$1,000 per occurrence**</b>            |
| 8  | Damage caused or loss of use to an existing SRTA toll collection device.  | <b>\$2,000 per device per occurrence**</b> |
| 9  | Damage caused or loss of use to an existing SRTA toll rate device.  | <b>\$4,000 per device per occurrence**</b> |
| 10 | Damage caused or loss of use to an existing SRTA ITS device (excluded toll collection and toll rate devices).   | <b>\$1,000 per device per occurrence**</b> |

\*In addition to nonrefundable deductions, DB Team shall be liable for any fines assessed against GDOT as a result of the any noncompliance event as provided.

\*\*In addition to nonrefundable deductions, DB Team shall be liable for all costs of repairs of ITS equipment. ITS repairs will be done in accordance with Volume 3 Section 17.4.1.4.

**EXHIBIT 19**

**Insert completed Form R in executed version**

FORM R

GEORGIA SECURITY AND IMMIGRATION COMPLIANCE ACT AFFIDAVIT

Contract No. and Name:

Design-Build Agreement for the I-85 Widening Project (the "Project")

Name of Contracting Entity: C. W. Matthews Contracting Co., Inc.

By executing this affidavit, the undersigned person or entity verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, firm, or corporation which is contracting with the Georgia Department of Transportation and the State Road and Tollway Authority has registered with, is authorized to participate in, and is participating in the federal work authorization program commonly known as E-Verify,<sup>1</sup> in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91.

The undersigned person or entity further agrees that it will continue to use the federal work authorization program throughout the contract period, and it will contract for the physical performance of services in satisfaction of such contract only with subcontractors who present an affidavit to the undersigned with the information required by O.C.G.A. § 13-10-91(b).

The undersigned person or entity further agrees to maintain records of such compliance and provide a copy of each such verification to the Georgia Department of Transportation or the State Road and Tollway Authority at the time the subcontractor(s) is retained to perform such service.

32751

EEV/E-Verify™ User Identification Number

08/18/2006

Date of Authorization

[Signature]  
BY: Authorized Officer or Agent  
(Name of Person or Entity)

August 25, 2017  
Date

President

Title of Authorized Officer or Agent

Daniel P. Garcia

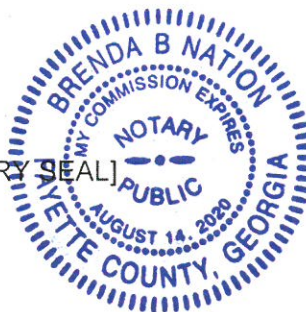
Printed Name of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME  
ON THIS THE

25<sup>th</sup> DAY OF August 2017

Brenda B. Nation  
Notary Public Brenda B. Nation

[NOTARY SEAL]



My Commission Expires: August 14, 2020

<sup>1</sup> or any subsequent replacement operated by the United States Department of Homeland Security or any equivalent federal work authorization program operated by the United States Department of Homeland Security to verify information of newly hired employees, pursuant to the Immigration Reform and Control Act of 1986 (IRCA), P.L. 99-603.

List of states that verify immigration status prior to issuance of a driver's license or I.D. card and only issue to persons lawfully present in the United States, as required by O.C.G.A Section 13-10-91(b)(5).

**Compliant**

Alabama  
Alaska\*  
Arizona  
Arkansas  
California\*  
Colorado  
Connecticut  
Delaware  
District of Columbia  
Florida  
Georgia  
Hawaii  
Idaho\*\*  
Indiana  
Illinois \*\*  
Iowa  
Kansas  
Louisiana\*\*  
Maryland  
Massachusetts\*\*  
Michigan\*\*  
Mississippi  
Nebraska  
Nevada  
New Hampshire\*\*  
New Jersey\*\*  
New Mexico  
New York\*\*  
North Carolina\*\*  
North Dakota\*\*  
Ohio  
Oklahoma\*  
Rhode Island\*\*  
South Carolina\*  
South Dakota  
Tennessee  
Texas\*\*  
Utah  
Vermont  
Virginia\*  
West Virginia  
Wisconsin  
Wyoming

US Territories Am. Samoa, Guam, Puerto Rico and the N. Marianas also have an extension through 10/10/17

**Non-compliant**

Kentucky (effective 1/30/17, grace period ends and the state is non-compliant)

Maine (effective 1/30/17, grace period ends and the state is non-compliant)

Missouri

Montana (effective 1/30/17, grace period ends and the state is non-compliant)

Pennsylvania (effective 1/30/17, grace period ends and the state is non-compliant)

**Only ENHANCED License is Compliant**

Minnesota

Washington

**Only REAL ID Act License (Starred License) is Compliant**

California\* (California's non-compliant state license may not be not Real ID Act compliant-check both sides for an indication that it is acceptable for federal purposes)

\*Indicates an extension allowing Federal agencies to accept their driver's licenses through June 6, 2017.

\*\*Indicates an extension allowing Federal agencies to accept their driver's licenses through October 10, 2017.

**EXHIBIT 20**

**TERMS FOR TERMINATION COMPENSATION**

**A. Compensation on Termination for Convenience, for SRTA Default, or for SRTA Suspension of Work**

1. In the event of termination of the Agreement under Article 19.1 (Termination for Convenience) or Article 19.4 (Termination for SRTA Default or Suspension of Work), the Termination Compensation shall equal:

(i) That portion of the DB Contract Sum on account of (a) Work performed that has not already been paid; plus

(ii) The amount necessary to reimburse reasonable and documented out-of-pocket costs of third party and Affiliate Contractors to demobilize and terminate under Contracts between Design-Build Team and third parties or Affiliates for performance of Work, excluding Design-Build Team's non-contractual liabilities and indemnity liabilities (contractual or non-contractual) to third parties or Affiliates; plus

(iii) If termination occurs prior to Substantial Completion, Design-Build Team's own reasonable and documented out-of-pocket costs to demobilize (without duplication) and carry out termination obligations as may be directed by SRTA or required pursuant to the Agreement; minus

(iv) The sum of (i) the greater of (A) the proceeds received from insurance (including casualty insurance and business interruption insurance) that is required to be carried pursuant to Article 16.1 of the Agreement and provides coverage to pay, reimburse or provide for any of the costs and losses attributable to any Force Majeure Event, and (B) the proceeds received from insurance that is actually carried by or insuring Design-Build Team under policies solely with respect to the Project and the Work, regardless of whether required to be carried pursuant to Article 16.1 of the Agreement, and that provides coverage to pay, reimburse or provide for any of the costs and losses attributable to any Force Majeure Event (exclusive of payments on account of replacement Work performed and to be reimbursed under the builder's risk insurance coverage), plus (ii) the foregoing costs and losses that Design-Build Team is deemed to have self-insured pursuant to Article 16.3.3 of the Agreement; minus

(v) The portion of any Compensation Amounts previously paid to (or charged against) Design-Build Team that compensated Design-Build Team for Work attributable to the period after the Early Termination Date.

2. In the event of termination of the Agreement under Article 19.1 (Termination for Convenience) or Article 19.4 (Termination for SRTA Default or Suspension of Work), any such Termination Compensation shall be payable by SRTA as follows:

(i) For Termination for Convenience

(a) Termination for Convenience shall be valid and effective on the date set forth in the Notice of Termination for Convenience, which date shall not be more than three (3) months after the date the notice is delivered.

(b) SRTA shall deliver to Design-Build Team, in immediately available funds, within sixty (60) days after the Early Termination Date, the Termination Compensation due, less a holdback amount equal to SRTA's reasonable estimate of the costs Design-Build Team will thereafter incur to perform and complete its post-termination obligations under Article 19.5 of the Agreement, subject to Sections (ii)(b) - (d) below.

(ii) For Termination for SRTA Default or Suspension of Work

(a) If the Agreement is terminated due to Design-Build Team's exercise of its right to terminate under Article 19.4 of the Agreement, termination shall be valid and effective on the date notice of termination is delivered; and, subject to Articles 19.3.2 and 19.4.4, SRTA shall deliver to Design-Build Team, in immediately available funds, within sixty (60) days after the Early Termination Date, the Termination Compensation due, less a holdback amount equal to SRTA's reasonable estimate of the costs Design-Build Team will thereafter incur to perform and complete its post-termination obligations under Article 19.5 of the Agreement. In the event that the Termination Compensation is negative, then the Design-Build Team shall deliver the Compensation Payment due to SRTA within sixty (60) days after the Early Termination Date.

(b) SRTA shall pay the holdback amount to Design-Build Team within ten (10) days after Design-Build Team completes all its post-termination obligations under Article 19.5 of the Agreement.

(c) If as of the date SRTA tenders payment under clause (a) above the Parties have not agreed upon the amount of Termination Compensation due, then:

(i) SRTA shall proceed with such payment to Design-Build Team;

(ii) Within thirty (30) days after receiving such payment Design-Build Team shall deliver to SRTA written notice of the additional amount of Termination Compensation that Design-Build Team in good faith determines is still owing (the "disputed portion");

(iii) SRTA shall pay the disputed portion of the Termination Compensation to Design-Build Team in immediately available funds within thirty (30) days after the disputed portion is determined by settlement, final order or final judgment, and also shall pay interest thereon, at the Default Interest Rate from the Early Termination Date until paid; and

(iv) A failure by SRTA to effect payment by such date shall not entitle Design-Build Team to reinstatement of the Design-Build Team's Interest or to rescission of the termination.

(d) From and after the Early Termination Date until the Termination Compensation is finally determined and paid, the provisions of Article 19.10 of the Agreement shall apply

(e) If it is determined by settlement or final judgment that the Termination Compensation due from SRTA is less than the payment previously made by SRTA, then within thirty (30) days after the date of settlement or final judgment Design-Build Team shall reimburse the excess payment, together with interest thereon at the Default Interest Rate from the date of overpayment until the date of reimbursement.

(f) Any amounts to be paid by SRTA pursuant hereto shall be subject to Default Interest Rate from the date that such payment shall be due until paid.

**B. Compensation on Termination for Design-Build Team Default**

1. Design-Build Team shall not be entitled to receive any compensation where the Agreement is terminated by SRTA pursuant to Article 19.3 as a result a Design-Build Team Default if it has been determined by SRTA that the damages incurred by SRTA and costs to complete the Work as a result of the Design-Build Team Default exceed the unpaid balance of the DB Contract Sum. In no event shall Design-Build Team be entitled to any direct costs, including demobilization, associated with a termination by SRTA pursuant to Article 19.3. In the event that the Termination Compensation is negative, then the Design-Build Team shall deliver the Compensation Payment due to SRTA within sixty (60) days after the Early Termination Date.

**C. Claims**

1. Notwithstanding anything to the contrary herein, Termination Compensation shall include and be adjusted on account of any outstanding Claim that is independent of the event of termination and which is not otherwise resolved as of the effective date of such termination. The Parties shall adjust the Termination Compensation by the amount of the unpaid award, if any, on the Claim.

2. At SRTA's sole election, it may hold back from payment of the Termination Compensation for deposit into the SRTA Claims Account the amount of any Claim of SRTA against Design-Build Team not resolved prior to payment. SRTA shall provide written notice to Design-Build Team of any such election, the subject Claim and the amount deposited or to be deposited, prior to or concurrently with tendering payment of the Termination Compensation.

3. If as of the date SRTA tenders payment under clause (a) above the Parties have not agreed upon the amount of Termination Compensation due, then:

(i) SRTA shall proceed with such payment to Design-Build Team;

(ii) Within thirty (30) days after receiving such payment Design-Build Team shall deliver to SRTA written notice of the additional amount of Termination Compensation that Design-Build Team in good faith determines is still owing (the "disputed portion");

(iii) SRTA shall pay the disputed portion of the Termination Compensation to Design-Build Team in immediately available funds within thirty (30) days after the disputed portion is determined by settlement, final order or final judgment, together with interest thereon at the Default Interest Rate from the later of the two dates set forth in clause (a) above until paid; and

(iv) Failure by SRTA to effect payment by such date shall not entitle Design-Build Team to reinstatement of the Design-Build Team's Interest or to rescission of the termination.

4. If it is determined by settlement or final judgment that the Termination Compensation due from SRTA is less than the payment previously made by SRTA, then within thirty (30) days after the date of settlement or final judgment Design-Build Team shall reimburse the excess payment, together with interest thereon at the Default Interest Rate from the date of overpayment until the date of reimbursement.

**EXHIBIT 21**

Insert Completed Form B In Executed Version

FORM B

Non-Collusion Affidavit\*

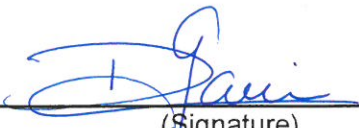
STATE OF Georgia )  
 )SS:  
COUNTY OF Cobb )

Each of the undersigned, being first duly sworn, deposes and says that:

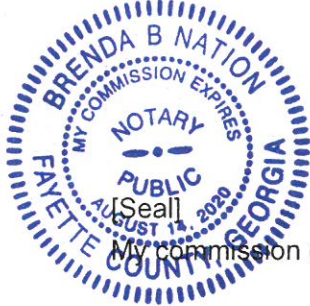
- A. Daniel P. Garcia is the President of C.W. Matthews Contracting Co., Inc. and N/A is the N/A of N/A, which entity(ies) are the N/A of N/A, the entity making the foregoing Proposal.
- B. The Proposal is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, joint venture, limited liability company or corporation; the Proposal is genuine and not collusive or a sham; the Proposer has not directly or indirectly induced or solicited any other Proposer to put in a false or sham Proposal, and has not directly or indirectly colluded, conspired, connived or agreed with any Proposer or anyone else to put in a sham Proposal or refrained from proposing; the Proposer has not in any manner, directly or indirectly, sought by agreement, communication or conference with anyone to fix the prices of the Proposer or any other Proposer, or to fix any overhead, profit or cost element included in the Proposal, or of that of any other Proposer, or to secure any advantage against GDOT or anyone interested in the proposed DBA; all statements contained in the Proposal are true; and, further, the Proposer has not, directly or indirectly, submitted its prices or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company, association, joint venture, limited liability company, organization, Proposal depository or any member, partner, joint venture member or agent thereof to effectuate a collusive or sham Proposal.
- C. The Proposer will not, directly or indirectly, divulge information or data regarding the price or other terms of its Proposal to any other Proposer, or seek to obtain information or data regarding the price or other terms of any other Proposal, until after award of the DBA or rejection of all Proposals and cancellation of the Request for Proposals.

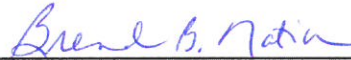
\* Initially capitalized terms not otherwise defined herein shall have the meanings ascribed thereto pursuant to the Instructions to Proposers within the Request for Proposals for the Project.

*[signature page follows]*

|   |                         |
|---|-------------------------|
| <br>_____<br>(Signature) | _____<br>(Signature)    |
| Daniel P. Garcia<br>_____<br>(Name Printed)   | _____<br>(Name Printed) |
| President<br>_____<br>(Title)   | _____<br>(Title)        |

Subscribed and sworn to before me this 25<sup>th</sup> day of August, 2017.





Notary Public in and for Brenda B. Nation  
said County and State Fayette, Georgia

My commission expires: August 14, 2020.

[Duplicate or modify this form as necessary so that it accurately describes the entity making the Proposal and so that it is signed on behalf of all partners, members, joint venture members, Participating Members and Major Non-Participating Members.]

**FORM B**

**Non-Collusion Affidavit\***

STATE OF South Carolina )  
 )SS:  
COUNTY OF Richland )

Each of the undersigned, being first duly sworn, deposes and says that:

- A. Mitchell Metts, Vice President of Infrastructure Consulting & Engineering, PLLC and N/A is the N/A of N/A, which entity(ies) are the Lead of C.W. Matthews, the entity making the foregoing Proposal. Engineering Firm Contracting Co., Inc.
- B. The Proposal is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, joint venture, limited liability company or corporation; the Proposal is genuine and not collusive or a sham; the Proposer has not directly or indirectly induced or solicited any other Proposer to put in a false or sham Proposal, and has not directly or indirectly colluded, conspired, connived or agreed with any Proposer or anyone else to put in a sham Proposal or refrained from proposing; the Proposer has not in any manner, directly or indirectly, sought by agreement, communication or conference with anyone to fix the prices of the Proposer or any other Proposer, or to fix any overhead, profit or cost element included in the Proposal, or of that of any other Proposer, or to secure any advantage against GDOT or anyone interested in the proposed DBA; all statements contained in the Proposal are true; and, further, the Proposer has not, directly or indirectly, submitted its prices or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company, association, joint venture, limited liability company, organization, Proposal depository or any member, partner, joint venture member or agent thereof to effectuate a collusive or sham Proposal.
- C. The Proposer will not, directly or indirectly, divulge information or data regarding the price or other terms of its Proposal to any other Proposer, or seek to obtain information or data regarding the price or other terms of any other Proposal, until after award of the DBA or rejection of all Proposals and cancellation of the Request for Proposals.

\* Initially capitalized terms not otherwise defined herein shall have the meanings ascribed thereto pursuant to the Instructions to Proposers within the Request for Proposals for the Project.

*[signature page follows]*

Mitchell Metts

(Signature)

Mitchell Metts, PE

(Name Printed)

Vice President of Special Projects

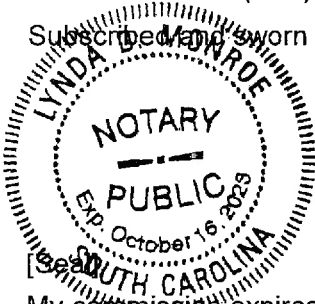
(Title)

(Signature)

(Name Printed)

(Title)

Subscribed and sworn to before me this 22 day of August, 2017.



Lynda Monroe

Notary Public in and for  
said County and State

My commission expires: October 16, 2023

*[Duplicate or modify this form as necessary so that it accurately describes the entity making the Proposal and so that it is signed on behalf of all partners, members, joint venture members, Participating Members and Major Non-Participating Members.]*

## **EXHIBIT 22**

### **INITIAL DESIGNATION OF AUTHORIZED REPRESENTATIVES**

#### **SRTA's Authorized Representative:**

SRTA hereby designates the persons from time to time serving as the Executive Director of SRTA as its Authorized Representatives and such other persons as the Executive Director may from time to time designate by delivering written notice thereof to Design-Build Team. Any such designations by the Executive Director may be limited in scope and duration and may be revoked at any time by delivery of written notice thereof to Design-Build Team pursuant to Article 24.11 of the Agreement.

#### **GDOT's Authorized Representative:**

GDOT hereby designates the persons from time to time serving as the Commissioner of GDOT as its Authorized Representatives and such other persons as the Commissioner may from time to time designate by delivering written notice thereof to Design-Build Team. Any such designations by the Commissioner may be limited in scope and duration and may be revoked at any time by delivery of written notice thereof to Design-Build Team pursuant to Article 24.11 of the Agreement.

#### **Design-Build Team's Authorized Representative:**

Design-Build Team hereby designates the persons from time to time serving as the Chief Executive Officer of Design-Build Team as its Authorized Representatives and such other persons as the Chief Executive Officer may from time to time designate by delivering written notice thereof to GDOT. Any such designations by the Chief Executive Officer may be limited in scope and duration and may be revoked at any time by delivery of written notice thereof to GDOT pursuant to Article 24.11 of the Agreement.

**EXHIBIT 23**

Insert completed Form T in executed version

FORM T

Drug Free Workplace

STATE OF Georgia )  
 )SS:  
COUNTY OF Cobb )

Each of the undersigned, being first duly sworn, deposes and says that:

Daniel P. Garcia is the President of C.W. Matthews Contracting Co., Inc. and N/A is the N/A of N/A, which entity(ies) are the N/A of N/A, the entity making the foregoing Proposal.

The undersigned certifies that the provisions of Code Sections 50-24-1 through 50-24-6 of the Official Code of Georgia Annotated, relating to the "Drug-free Workplace Act", have been complied with in full.

The undersigned further certifies that:


(1) A drug-free workplace will be provided for the Contractor's employees during the performance of the Contract; and

(2) Each Contractor who hires a Subcontractor to work in a drug-free workplace shall secure from that Subcontractor the following written certification:

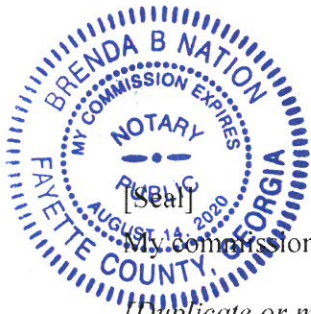
"As part of the subcontracting agreement with (Contractor's name)\_\_\_\_\_, \_\_\_\_\_ (Subcontractor's name)\_\_\_\_\_ certifies to the Contractor that a drug free workplace will be provided for the Subcontractor's employees during the performance of this Contract pursuant to paragraph (7) of subsection (b) of Code Section 50-24-3."


Also, the undersigned further certifies that he will not engage in the unlawful manufacture, sale distribution, dispensation, possession, or use of a controlled substance or marijuana during the performance

*[signature page follows]*

|   |                         |
|---|-------------------------|
| <br>_____<br>(Signature) | _____<br>(Signature)    |
| Daniel P. Garcia<br>_____<br>(Name Printed)   | _____<br>(Name Printed) |
| President<br>_____<br>(Title)   | _____<br>(Title)        |

Subscribed and sworn to before me this 25<sup>th</sup> day of August, 2018.<sup>7</sup>





Notary Public in and for Brenda B. Nation  
said County and State

My commission expires: August 14, 2020.

*[Duplicate or modify this form as necessary so that it accurately describes the entity making the Proposal and so that it is signed on behalf of all partners, members, joint venture members, Participating Members and Major Non-Participating Members.]*

FORM T

Drug Free Workplace

STATE OF South Carolina )  
 )SS:  
COUNTY OF Richland )

Each of the undersigned, being first duly sworn, deposes and says that:

Mitchell Metts, Vice President of Infrastructure Consulting & Engineering, PLLC  
PE \_\_\_\_\_ is the Special Projects of \_\_\_\_\_ and \_\_\_\_\_ N/A is the \_\_\_\_\_ N/A of  
\_\_\_\_\_ N/A, which entity(ies) are the Lead \_\_\_\_\_ of C.W. Matthews, the entity making the  
foregoing Proposal. Engineering Firm Contracting Co., Inc.

The undersigned certifies that the provisions of Code Sections 50-24-1 through 50-24-6 of the Official Code of Georgia Annotated, relating to the "Drug-free Workplace Act", have been complied with in full.

The undersigned further certifies that:

(1) A drug-free workplace will be provided for the Contractor's employees during the performance of the Contract; and

(2) Each Contractor who hires a Subcontractor to work in a drug-free workplace shall secure from that Subcontractor the following written certification:

"As part of the subcontracting agreement with (Contractor's name) \_\_\_\_\_, \_\_\_\_\_  
(Subcontractor's name) \_\_\_\_\_ certifies to the Contractor that a drug  
free workplace will be provided for the Subcontractor's employees during the  
performance of this Contract pursuant to paragraph (7) of subsection (b) of Code  
Section 50-24-3."

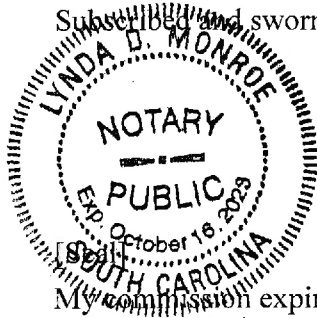
Also, the undersigned further certifies that he will not engage in the unlawful manufacture, sale distribution, dispensation, possession, or use of a controlled substance or marijuana during the performance

*[signature page follows]*

Mitchell Metts  
(Signature)  
Mitchell Metts, PE  
(Name Printed)  
Vice President of Special Projects  
(Title)

\_\_\_\_\_  
(Signature)  
\_\_\_\_\_  
(Name Printed)  
\_\_\_\_\_  
(Title)

Subscribed and sworn to before me this 22 day of August 2017.



Lynda Monroe  
Notary Public in and for  
said County and State

My commission expires: October 16, 2023

*[Duplicate or modify this form as necessary so that it accurately describes the entity making the Proposal and so that it is signed on behalf of all partners, members, joint venture members, Participating Members and Major Non-Participating Members.]*

**EXHIBIT 24**

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

**SPECIAL PROVISION**

**ESCROW BID DOCUMENTATION**

**Scope and Purpose**

The purpose of this specification is to preserve the bid documents of the successful proposer (DB Team) for use by the parties in any claims or litigation between SRTA and DB Team arising out of this Design-Build DB Agreement (the "DB Agreement").

The DB Team shall submit a legible copy of bid documentation used to prepare the bid for this DB Agreement to SRTA or their authorized representative at the Department. Such documentation shall be placed in escrow with a banking institution or other bonded document storage facility and preserved by that institution/facility as specified in the following sections of this specification.

**Bid Documentation**

The term "bid documentation" as used in this specification means all writings, working papers, computer printouts, charts, and all other data compilations which contain or reflect information, data, and calculations used by the DB Team to determine the bid in bidding for this project. The term "bid documentation" includes, but is not limited to, DB Team equipment rates, DB Team overhead rates, labor rates, efficiency or productivity factors, arithmetic extensions, and quotations from consultants, subconsultants, subcontractors, and material suppliers to the extent that such rates and quotations were used by the DB Team in formulating and determining the amount of the bid. The term "bid documentation" also includes any manuals which are standard to the industry used by the DB Team in determining the bid for this project. Such manuals may be included in the bid documentation by reference. Such reference shall include the name and date of the Publication and the Publisher. The term does not include bid documents provided by the Department for use by the DB Team in bidding on this project.

**Submittal of Bid Documentation**

The DB Team shall submit the bid documentation to SRTA or their authorized representative at the Department in a container suitable for sealing, no later than ten calendar days following award of the DB Agreement by SRTA. A Notice to Proceed will not be issued until the acceptable documentation has been received. The container shall be clearly marked "Bid Documentation" and shall also show on the face of the container the DB Team's name, the date of submittal, the Project Number, the P.I. Number, the Contract Number, and the County(ies).

**Affidavit**

In addition to the bid documentation, an affidavit, signed under oath by an individual authorized by the DB Team to execute bidding proposals shall be included, as set forth in Attachment 1. The affidavit shall list each bid document with sufficient specificity so a comparison may be made between the list and the bid documentation to ensure that all of the bid documentation listed in the affidavit has been enclosed. The affidavit shall attest that the affiant has personally examined the bid documentation, that the affidavit lists all of the documents used by the DB Team to determine the bid for this project, and that all such bid documentation has been included.

**Verification**

Upon receipt of the bid documentation SRTA or their authorized representatives at the Department and the DB Team will verify the accuracy and completeness of the bid documentation compared to the affidavit. Should a discrepancy exist the DB Team shall immediately furnish SRTA or their authorized representative at the Department with any other needed total documentation. SRTA or their authorized representative at the Department, upon determining that the bid documentation is complete, will, in the presence of the DB Team's representative, immediately place the complete documentation and affidavit in the container and seal it. Both

parties will deliver the sealed container to a banking institution or other bonded document storage facility selected by SRTA or their authorized representative at the Department for placement in a safety deposit box, vault or other secure accommodation.

### **Duration and Use**

The bid documentation and affidavit shall remain in escrow during the life of the DB Agreement or until such time as the DB Team notifies SRTA of its intention to file a claim or its initiation of litigation against SRTA or GDOT related to the Contract. Notification of the DB Team's intention to file a claim or litigation against SRTA or GDOT shall be sufficient evidence for SRTA or their authorized representative at the Department to obtain the release and custody of the bid documentation. If no such notification is received and the DB Team has signed the final Standard Release Form, SRTA or the Department shall instruct the banking institution or other bonded document storage facility to release the sealed container to the DB Team, as set forth in Attachment 2.

The DB Team agrees that the sealed container placed in escrow contains all of the bid documentation used to determine the bid and that no other bid documentation shall be utilized by the DB Team in litigation over claims brought by the DB Team arising out of this contract.

### **Refusal or Failure to Provide Bid Documentation**

Failure or refusal to provide bid documentation shall be deemed either:

1. Failure to execute the DB Agreement if the DB Agreement has not yet been executed or,
2. Material breach of the DB Agreement if the DB Agreement has been executed.

Should the DB Team fail to execute the DB Agreement as stated in 1 above, SRTA will retain the bid bond. Refusal of the DB Team to provide adequate documentation after execution of the DB Agreement will be considered material breach of the DB Agreement and the DB Team will be declared in default of the Contract. SRTA may, at its option terminate the DB Agreement for default. These remedies are not exclusive and SRTA may take such other action as is available to it under the law.

### **Confidentiality of Bid Documentation**

The bid documentation and affidavit in escrow are, and will remain, the property of the DB Team. SRTA has no interest in, or right to, the bid documentation and affidavit other than to verify the contents and legibility of the bid documentation unless notification of the intention to file claim is received or litigation ensues between SRTA, and/or GDOT and DB Team. In the event of such notification or litigation, the bid documentation and affidavit shall become the property of SRTA.

### **Cost and Escrow Instructions**

The cost of the escrow will be borne by SRTA or the Department as agreed to between the two parties. SRTA or their authorized representative at the Department will provide escrow instructions to the banking institution or other bonded document storage facility consistent with this specification.

### **Escrow Agreement**

A copy of the Escrow Agreement the successful bidder will be required to sign is provided as set forth in Attachment 3. The successful bidder (DB Team) agrees that they will sign the Escrow Agreement. Should the DB Team fail to sign the Escrow Agreement, when presented, SRTA will retain the bid bond. If the DB Agreement has been executed, and the DB Team fails to sign the Escrow Agreement, the DB Team may be declared in default of the Contract.

### **Payment**

There will be no separate payment for compilation of the data, container or cost of verification of the bid documentation. All costs shall be included in the overall DB Agreement bid price.

**EXHIBIT 24**

**Attachment 1**

**Escrow Agreement for Bid Documents**

THIS AGREEMENT is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and among the State Road and Toll Authority, a body corporate and politic and an instrumentality and public corporation of the State of Georgia, hereinafter called ("SRTA"); the Georgia Department of Transportation; an agency of the State of Georgia, hereinafter called the ("DEPARTMENT"); and \_\_\_\_\_; hereinafter called the "DB TEAM"; and \_\_\_\_\_, hereinafter called the "ESCROW AGENT".

WHEREAS, SRTA awarded a project on \_\_\_\_\_, 20 \_\_\_\_, based on a bid proposal submitted by the DB TEAM, hereinafter called the "PROPOSAL", for the construction of Project Number \_\_\_\_\_, \_\_\_\_\_ County(ies), Georgia, hereinafter called the "PROJECT", pursuant to which the DB TEAM shall cause the work therein to be designed and constructed; and

WHEREAS, SRTA, the DEPARTMENT, and DB TEAM are desirous of entering into an Escrow Agreement, to provide for specific contingencies governing the escrow and control of the PROPOSAL bid documentation; hereinafter called "BID DOCUMENTS"; and

WHEREAS, SRTA, the DEPARTMENT, and DB TEAM desire the ESCROW AGENT to hold the BID DOCUMENTS of the DB TEAM;

NOW THEREFORE, for and in consideration of the mutual covenants contained herein, it is agreed by and between the parties hereto that:

**ARTICLE I  
ESCROW BID DOCUMENTATION**

The parties hereto agree to the establishment of Escrow of the BID DOCUMENTS for the PROPOSAL. It is the understanding of the parties hereto that SRTA or the DEPARTMENT shall pay the ESCROW AGENT, as determined by separate agreement, for the escrow of the BID DOCUMENTS submitted to the ESCROW AGENT under the terms of this Agreement.

**ARTICLE II  
ACKNOWLEDGMENT**

By its signature below, the ESCROW AGENT hereby acknowledges receipt from SRTA, the DEPARTMENT, and CONTRACTOR of a sealed container bearing the DB TEAM'S name, address and PROJECT Number assigned by the DEPARTMENT and containing, as specified by the affidavit of the DB TEAM, the PROPOSAL BID DOCUMENTS for the aforementioned PROJECT.

**ARTICLE III  
DEPOSIT OF BID DOCUMENTS**

The PROPOSAL BID DOCUMENTS shall remain on deposit with the ESCROW AGENT until those conditions of release, as specified in ARTICLE IV, RELEASE FROM ESCROW, are met. As long as the BID DOCUMENTS remain in escrow with the ESCROW AGENT, the ESCROW AGENT shall not allow any person access, to gain possession, or to in any way interfere with the sealed BID DOCUMENT container.

**ARTICLE IV  
RELEASE FROM ESCROW**

Upon being presented, by SRTA or the DEPARTMENT, with a DB TEAM signed final Standard Release Form for the DB Agreement for the PROJECT, the ESCROW AGENT shall deliver to the DB TEAM the sealed container bearing the DB TEAM'S name and address and project number on it. The ESCROW AGENT is also authorized to release the BID DOCUMENT sealed container to SRTA or the DEPARTMENT without the DB TEAM'S signed consent subject to the following conditions:

1. The DB TEAM has provided written notification to SRTA of the DB TEAM'S intention to file a claim related to the DB Agreement for the PROJECT; or
2. The DB TEAM has initiated litigation against SRTA or GDOT relating to the DB Agreement for the PROJECT.

Prior to any release from escrow to SRTA or the DEPARTMENT, the ESCROW AGENT shall verify that either condition of release to SRTA, as stated above, has been met by providing written notice to the DB TEAM of the ESCROW AGENT'S intention to release the PROPOSAL BID DOCUMENTS to SRTA or the DEPARTMENT. Such written notice from the ESCROW AGENT shall be sent by certified mail no less than ten (10) calendar days prior to release to SRTA or the DEPARTMENT. Upon any release from escrow of the PROPOSAL BID DOCUMENT container the ESCROW AGENT shall cause the execution of Attachment 2, Escrow Release for PROPOSAL BID DOCUMENTS, as attached hereto and incorporated herein as if fully contained, by the party receiving the BID DOCUMENT container.

**ARTICLE V  
INDEMNITY**

The DB TEAM agrees to indemnify and hold the ESCROW AGENT harmless against any loss, claim, damage, liability or expenses incurred in connection with any action, suit, proceeding, claim or alleged liability arising from this Escrow Agreement, provided, however, that the ESCROW AGENT shall not be so indemnified or held harmless for its negligence or acts of bad faith by it or any of its agents or employees.

**ARTICLE VI  
NOTICES**

All notices and other communication shall be in writing and shall be deemed to have been duly given and delivered if mailed by certified mail, return receipt requested, postage prepaid to the addresses stated herein:

SRTA:

State Road and Toll Authority

ATTN:

245 Peachtree Center Ave, NE, Suite 2200

Atlanta GA, 30303

DEPARTMENT:

Georgia Department of Transportation

ATTN: Treasurer

600 West Peachtree Street

Atlanta, Georgia 30308

DB TEAM:

ESCROW AGENT:

#### **ARTICLE VII DUTIES OF ESCROW AGENT**

The duties and responsibilities of the ESCROW AGENT shall be limited to those expressly set forth herein and the ESCROW AGENT shall act only in accordance with this ESCROW Agreement.

Notwithstanding specific provisions hereunder, the ESCROW AGENT shall at all times act upon and in accordance with the joint written instructions of SRTA, the DEPARTMENT, and DB TEAM.

#### **ARTICLE VIII LAWS**

This Escrow Agreement shall be deemed to have been executed in Fulton County, Georgia and the laws of the State of Georgia shall apply.

**ARTICLE IX  
ASSIGNMENT**

This Escrow Agreement shall not be assigned without the written consent of all the parties hereto.

**ARTICLE X  
SURVIVAL OF CONTRACT**

Except as may be expressly modified, all terms and conditions of this Escrow Agreement remain in full force and effect. The establishment of this Escrow Agreement is limited solely by the contingency of release of the PROPOSAL BID DOCUMENTS by the DB TEAM to SRТА or the DEPARTMENT, as established by Article IV, Release From Escrow. Nothing contained herein shall alter the rights of the parties hereto.

The covenants herein contained shall, except as otherwise provided, accrue to the benefit of and be binding upon the successors and assigns of the parties hereto.

IN WITNESS WHEREOF, the parties hereunto set their hands and seals the day above first  
written.

DB TEAM:

ESCROW AGENT:

BY:

BY:

\_\_\_\_\_  
(SEAL)

\_\_\_\_\_  
(SEAL)

TITLE:

TITLE:

\_\_\_\_\_  
WITNESS

\_\_\_\_\_  
WITNESS

SRTA:

DEPARTMENT:

BY:

BY:

\_\_\_\_\_  
(SEAL)

\_\_\_\_\_  
(SEAL)

TITLE:

TITLE: STATE TRANSPORTATION ENGINEER

\_\_\_\_\_  
WITNESS

\_\_\_\_\_  
WITNESS

**ESCROW CONTAINER SEAL NUMBERS:**

**EXHIBIT 24**

**Attachment 2**

**ESCROW RELEASE OF BID DOCUMENTS**

This is to certify that on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, the sealed container  
identified as:

**“Bid Documentation”**

CONTRACTOR:

PROJECT NUMBER: P.I.

NUMBER: CONTRACT

NUMBER: DATE OF

SUBMITTAL:

(Evidence by Agreement dated \_\_\_\_\_).

was released from escrow and personally handed to the below named individual acknowledging receipt, representing  
the CONTRACTOR/DEPARTMENT, by the ESCROW AGENT upon the presentation of the required  
documentation pursuant to Article IV, Release from Escrow, of the agreement dated \_\_\_\_\_, 20\_\_\_\_, a copy of such  
documentation is attached hereto.

Acknowledgment of Receipt:

\_\_\_\_\_

Acknowledgment of Release:

\_\_\_\_\_

ESCROW AGENT

**ESCROW CONTAINER SEAL NUMBERS:**

AFFIDAVIT

STATE OF GEORGIA

COUNTY OF FULTON

COMES NOW \_\_\_\_\_ (Name) \_\_\_\_\_ (Title)  
of \_\_\_\_\_ (Company Name) \_\_\_\_\_ who, after having been duly sworn, on oath,  
state and depose as follows:

1.

This Affidavit is based upon the personal knowledge of the Affiant.

2.

\_\_\_\_\_ (Company Name) \_\_\_\_\_ submitted a bid on Georgia Department of Transportation  
Project No. \_\_\_\_\_, \_\_\_\_\_ COUNTY(IES) which bid was the low, responsive bid, and  
a Contract has been entered into between \_\_\_\_\_ (Company Name) \_\_\_\_\_ and the Georgia Department of  
Transportation, known as Contract No. \_\_\_\_\_.

3.

This Affidavit is given in compliance with the special provision entitled “ESCROW BID  
DOCUMENTATION” forming part of the Contract Documents of Contract No. \_\_\_\_\_.

4.

The Affiant attests that, in his capacity for \_\_\_\_\_ (Company Name) \_\_\_\_\_, he is personally  
aware the “Bid Documentation” which was used by the Company in determining, formulating, and submitting the bid  
on Project No. \_\_\_\_\_, \_\_\_\_\_ COUNTY(IES).

5.

The Affiant further states that he has examined the bid documentation which has been placed in a sealed  
container marked “Bid Documentation”, and that all such Bid Documentation utilized by the Company in  
determining, formulating, and submitting its bid is contained in the sealed container so marked.

6.

Each bid document contained in the sealed container is separately listed on Exhibit A, which is attached hereto  
and incorporated herein as fully as if included in this Affidavit at this paragraph 6.

Further Affiant sayeth not.

\_\_\_\_\_  
(Company Name)

By: \_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Print Name)

Its: \_\_\_\_\_  
(Title)

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
NOTARY PUBLIC

My Commission expires: \_\_\_\_\_



**Georgia Department of Transportation**  
**VOLUME 2**  
**Technical Provisions**  
**For**  
**Design-Build Agreement**  
**P.I. No. 110610**  
**I-85 Widening Project**



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# 1 GENERAL

*Supplement the following to Section 1 of Volume 3*

## 1.1 Project Scope

The Design-Build Team shall be responsible for the design and construction of the I-85 Widening project as required by the Design-Build Agreement. This includes but is not limited to the widening I-85 for the addition of a third general purpose lane between Hamilton Mill Road (STA 420+00) and STA 964+50.

The DB Team shall modify signs and restripe the auxiliary lane/14-foot buffer being constructed by GDOT Project PI No. 110600 to a general purpose lane from north of I-985 to Hamilton Mill Road. The northbound restriping begins at approximately STA 4210+00 (PI No. 110600) and the southbound restriping begins at approximately 2250+00 (PI No. 110600).

Additional restriping and associated work will include a transition section for the northbound lanes beginning at approximately STA 4195+00 (PI No. 110600) and ending at approximately STA 4210+00 (PI No. 110600). The transitions will be across all existing lanes to provide continuity for three (3) General Purpose lanes. The buffer area and lane shift restriping shall be accomplished by micro-mill and inlay of the existing OGFC.

The buffer area and lane shift restriping shall be accomplished by micro-mill and inlay of the existing OGFC.

All widening of I-85 shall be into the existing median. The construction of the median shall include installation of barrier protection measures consisting of concrete barrier. Construction of overpass bridges must accommodate an eight (8) lane section. Pavement designs for asphalt are included in Section 11 of Volume 2.

All termini points described in this Section or elsewhere in the DB Documents shall be the northern termini of the lane regardless of direction of travel.

For North Bound (NB) widening, the proposed lane will terminate as an inside drop. For South Bound (SB) widening, the proposed lane will be constructed as an inside addition. Lane drops in the NB direction and additions in the SB direction shall be a striped lane only and the full depth and width widening shall extend to the termini point.

The DB Team shall mill and overlay all lanes and outside shoulder of the existing roadway for all laneage within the project limits. All striping and pavement markers affected by the mill and overlay shall be replaced as part of this contract.

The DB Team shall install all regulatory signage.

DB Team shall reset any disturbed existing survey monuments. A file containing the locations of the existing survey monuments has been provided on the SharePoint Site.

Additional scope items are listed below:

- Replace Spout Springs Road overpass bridge. Spout Springs Road closures during the bridge construction will be allowed in accordance with the restrictions in Section 18.3.1.1.2.2 of Volume 2.
- Replace Flowery Branch Road overpass bridge. Flowery Branch Road closures during the bridge construction will be allowed in accordance with the restrictions in Section 18.3.1.1.2.2 of Volume 2.
- Replacement of the existing I-85 NB and SB bridges over Mulberry River to accommodate three (3) General Purpose lanes and shoulders as required elsewhere in the DB Documents.
- Replace Liberty Church Road/Jesse Cronin Road overpass bridge. Liberty Church Road/Jesse Cronin closures during the bridge construction will be allowed in accordance with the restrictions in Section 18.3.1.1.2.2 of Volume 2.

Project shall be constructed entirely within the existing ROW. Any design changes that require additional ROW will not be considered.

Limits of ramp design and construction will be the minimum required to tie the proposed mainline configuration into the existing ramp. If ramp meters are required per Section 16.3.8.1 of Volume 2, existing ramp geometry shall not be altered.

## **1.2 Project Description**

### **1.2.1 Other Considerations**

The DB Team's Design Documents for the Project shall comply with all requirements set forth in the DB Documents. The DB Team's Design Documents for the Project shall be consistent with the following:

- Environmental Document Approvals
- Concept Report
- Reference Information Documents (RIDs)

The DB Team shall not rely on the physical description contained herein to identify all Project components. The DB Team shall determine the full scope of the Project through thorough examination of the DB Documents and the Project or as may be reasonably inferred from such examination.

## **Design and Construction Requirements**

DB Team shall design and construct the Project to comply with the requirements of the DB Documents.

DB Team shall coordinate with GDOT and adjacent Governmental Entities and other third parties as appropriate to determine the design criteria, standards, and specifications of those components of Work which the DB Team will construct but which are to be maintained by others. For components of Work which potentially or actually impact the infrastructure of any Governmental Entity or third party entity, DB Team's design shall conform to the design requirements of such entity.

The DB Team is encouraged to stage construction so that continuous portions of roadway can be opened to traffic prior to Substantial Completion. The Department may direct the DB Team to open any continuous three (3) mile section of roadway to traffic within thirty (30) days of its completion in accordance with Article 7.7.4 of the DB Agreement. The DB Team will have ten (10) days to comply with the Departments request.

## **2 PROJECT MANAGEMENT**

### **2.1 Project Management Requirements**

*Supplement the following to Section 2.1 of Volume 3*

PROJECT MANAGEMENT PLAN - The Project Management Plan shall document the procedures and processes that are in effect to provide timely information to the project decision makers to effectively manage the scope, costs, schedules, and quality of, and the Federal requirements applicable to, the Project; and the role of the agency leadership and management team in the delivery of the Project. The DB Team is required to complete the following Management Plans/documents and include as Appendices to the Project Management Plan in addition to the Project Management Plan requirements in this Section 2. The requirements of these management plans and documents can be found throughout the Technical Provisions.

#### **2.1.1 Design Quality Assurance**

*No additional requirements*

#### **2.1.2 Construction Quality Control / Quality Assurance**

*Supplement the following to Section 2.1.2 of Volume 3*

GDOT will provide construction engineering inspection and testing in accordance with GDOT Specifications and the Engineer of Record's Design Documents.

GDOT will provide plant inspection, testing and certification of plant produced materials at existing GDOT approved plant locations such as for precast/pre-stressed concrete, asphalt, and structural steel fabrication.

#### **2.1.3 Environmental Monitoring**

*No additional requirements*

#### **2.1.4 Right of Way**

*No additional requirements*

#### **2.1.5 Safety and Security**

*No additional requirements*

#### **2.1.6 Traffic Management**

*No additional requirements*

#### **2.1.7 Project Communications (Media and Public Information)**

A critical objective for all projects is to maintain the trust, support, and confidence of the media and public throughout the life of the project. In order to meet this objective, it will

be critical to proactively manage messages and communications to the media. GDOT will be responsible for all communications with the media; all inquiries from media shall be directed to GDOT for responses. The DB Team shall coordinate and collaborate with GDOT on the development of the Public Information and Communications Plan (PICP). The DB Team shall ensure updated project information is provided to GDOT in a timely manner. The DB Team shall document all forms of project communications with Customer Groups, interested citizens, stakeholders, and general public.

#### **2.1.8 Project Closeout**

*No additional requirements*

#### **2.1.9 Project Phasing**

*No additional requirements*

#### **2.1.10 Reserved**

### **2.2 Project Schedule, Progress, and Payment**

#### **2.2.1 General Schedule Requirements**

*No additional requirements*

#### **2.2.2 Staged Project Schedule Development**

*No additional requirements*

#### **2.2.3 Schedule Organization**

*No additional requirements*

#### **2.2.4 Scheduling Requirements**

*No additional requirements*

#### **2.2.5 Software Requirements**

*No additional requirements*

#### **2.2.6 Scheduler Qualifications**

*No additional requirements*

#### **2.2.7 GDOT Review, Approval, and Acceptance**

*No additional requirements*

#### **2.2.8 Resource Loading**

*No additional requirements*

#### **2.2.9 Schedule of Values (SOV) and Cost-Loading**

*No additional requirements*

### **2.2.10 Maximum Payment Curve**

*No additional requirements*

### **2.2.11 Schedule Submittal Requirements**

*No additional requirements*

### **2.2.12 Progress, Payment Requests, and Payment**

*No additional requirements*

## **2.3 Quality Management Requirements**

### **2.3.1 Document Management**

*No additional requirements*

### **2.3.2 Quality Management Plan Submittal Requirements**

*No additional requirements*

### **2.3.3 Quality Management Plan Requirements**

*No additional requirements*

### **2.3.4 Quality Management Plan Structure**

*No additional requirements*

### **2.3.5 Nonconformance Report (NCR) System**

*No additional requirements*

#### **2.3.5.1 Role Definitions and Order of Review**

*No additional requirements*

#### **2.3.5.2 Disposition Options**

*No additional requirements*

#### **2.3.5.3 Corrective Action**

*No additional requirements*

#### **2.3.5.4 Workflow States**

*No additional requirements*

### **2.3.6 Quality Management Updates**

*No additional requirements*

### **2.3.7 Responsibility and Authority of DB Team Staff**

*No additional requirements*

### **2.3.8 Design Quality Management Plan**

*No additional requirements*

### **2.3.9 Record Drawings and Documentation**

*No additional requirements*

## **2.4 Requirements for GDOT Office and Equipment**

*Supplement the following to Section 2.4 of Volume 3:*

At a minimum, except where noted elsewhere in the DB Documents, DB Team's Key Personnel and major task managers and GDOT shall co-locate in a field office in Gwinnett or Barrow County, located within two (2) miles of the Project until Final Acceptance, to facilitate Project coordination and daily communication. The DB Team shall provide a field office for GDOT's staff co-located with the DB Team's management personnel no later than 15 Days after NTP3.

The field office may be a building, house, mobile office, or trailer if it is approved by GDOT and conforms with this Section 2.4. Ensure that the facility provided meets the following minimum dimension requirements: 24 feet wide by 60 feet wide with interior head-room of 7 feet.

### **2.4.1 General Office Requirements for Facilities Provided by the DB Team**

The DB Team shall provide a field office in good repair and in a clean and sanitary condition, of at least the same quality as the facilities that the DB Team provides its counterpart project management, design and field staff. These facilities shall be available for occupancy as specified. The DB Team shall secure sites, obtain all site permits, install, set up, and provide utility services, and maintain the facilities as part of the Work. The offices shall have at least two exits from each building. Entrance to the field office shall be secured with a door lock plus a dead bolt lock. All interior spaces shall have overhead lighting meeting OSHA and code requirements for office space. Each office space shall have at least two duplex receptacles. Minimum circuit capacity shall be 20 amps. Each office space shall be wired for phone and computer Local Area Network. The field office shall include separate restrooms for male and female. In the event that office spaces or appurtenant facilities are destroyed or damaged during the Contract period, the DB Team shall, at its expense, repair or replace those items, which the DB Team provided, to their original condition within 10 days. For the facilities it provides, the DB Team shall have the following responsibilities:

- a. Install, maintain, and pay for all utilities.
- b. Provide daily janitorial service (except weekends and State Designated Holidays) and maintain trash containers and trash pickup service.

- c. Provide maintenance of the exterior area of office spaces including access to parking areas.
- d. Provide desks, chairs, filing cabinets, bookcases and telephones in all offices.
- e. Provide copying, computer, printing, and facsimile equipment and services, including paper, supplies, and maintenance.
- f. Provide ventilation and air conditioning/cooling systems capable of maintaining temperature between 70 and 75 degrees Fahrenheit in all spaces throughout the year.
- g. Provide facilities that meet local code requirements for office space.
- h. Provide telephone service with outside lines for each office space in the field office facility. The DB Team shall be responsible for all local and long-distance phone charges after installation. At least one additional line will be dedicated for facsimile service and one additional line will be dedicated to high-speed data service. The phone system shall be capable of providing voicemail service to each extension.
- i. Provide and maintain all offices for at least 30 Days after Final Acceptance or until such facilities are no longer needed, whichever is earlier, unless otherwise agreed in writing. Ownership of the field office, equipment and telephone shall remain with the DB Team and shall be removed from the Site when instructed by GDOT.

**Table 2-1: GDOT Staff Field Office Space Requirements**

| Item              | No. Required | Requirement  |
|-------------------|--------------|--|
| Private Office    | 2            | Min 100 square feet each, enclosed with lockable door        |
| Staff Cubicles    | 6            | Min 50 square feet each                                      |
| Conference Area   | 1            | 3'x6' Table with 6 chairs                                    |
| Restrooms         | 2            | Male and female  |
| Paved parking     | 10           |  |
| Break Area        | 1            | 7 feet of counter space with sink and refrigerator           |
| Server room space | 1            | Sufficient to support the Department's computer requirements |

#### **2.4.2 Connectivity**

The DB Team shall make necessary arrangements for allowing access to the GDOT-provided server, printers and other hardware either through "hardwiring" or remote access. The DB Team shall also make arrangements for all of GDOT's computers to be linked directly to GDOT's network through a T1 internet connection with a minimum of 10 Mbps.

#### **2.4.3 Backup of Electronic Files and Protection of Hardcopy Files**

The DB Team shall provide a secure, fireproof location in which to store electronic and hardcopy backup files.

#### **2.4.4 Site Identification Signing**

The DB Team shall provide site identification signing at all Project offices and all sites of Work.

#### **2.4.5 Communication**

The DB Team shall establish and maintain telephone and radio communications, as appropriate, to control the Work and maintain communications with the GDOT, Third Parties, railroads and local and regional emergency response agencies or entities. The DB Team shall not use police or other emergency services' radio frequencies.

The DB Team shall provide daily courier service between the DB Team's main Project office, satellite offices and GDOT's and any GDOT field office on the Project at 10:00 a.m. and 3:00 p.m. each Working Day or as mutually agreed by the DB Team and GDOT.

### **2.5 Web-Based Project Management Program**

*No additional requirements*

## **3 PUBLIC INFORMATION AND COMMUNICATIONS**

### **3.1 General Requirements**

It is vital to the success of the Project that GDOT and the DB Team gain and maintain public awareness and support. This shall be accomplished through proactive communication of Project information to all Project Stakeholders in a timely manner, providing advanced notification of potential impacts, allowing meaningful opportunities for stakeholders to identify issues and recommend solutions, facilitating timely and appropriate feedback from GDOT, and supporting the execution of a high-quality, well executed communications plan to keep stakeholders informed, engaged, and educated. The DB Team shall coordinate with GDOT on items necessary to comply with the Department's adopted Public Information Policy Manual

This Section 3 describes the requirements with which DB Team shall comply during the Term of the Agreement regarding the provision of information and communication with GDOT to facilitate outreach and education to Project Stakeholders.

### **3.2 Administrative Requirements**

#### **3.2.1 *Public Information and Communications Plan***

The DB Team shall support the execution of an approved Public Information and Communications Plan under GDOT supervision that includes stakeholder involvement and public information strategies to engage and inform key stakeholders.

The DB Team will provide input and content to the comprehensive Public Information and Communications Plan (PICP).. The PICP shall include detailed strategies and action steps to inform, educate, and engage Project Stakeholders throughout every Project Phase. The DB Team shall provide input into an Emergency Event Communications plan that outlines guidelines for communications protocol, roles and responsibilities, specific activities, and timelines to adhere to during emergency situations. The DB Team shall coordinate and collaborate with GDOT on the development of the PICP. The DB Team shall also comply with the PICP throughout the Term of the Agreement. The PICP will also include a project-specific stakeholder list that will be developed, maintained, and updated by the DB Team throughout design and construction activities to ensure that all interested and affected Project Stakeholders will be notified about meetings and Project updates. Additionally, the PICP will include a general schedule of public information activities for the Project over the entire Term of the Agreement.

The PICP will be flexible, to capture the full magnitude of yet-to-be-determined impacts as a result of Project activities such as design, construction, and the public's reaction to these and other impacts. The PICP will also be resilient, to successfully guide the implementation of the outlined strategies, given the ever-changing desire for depth, breadth, and frequency of information by a variety of Project Stakeholders such as the media, elected officials, transportation stakeholders, and the general public. The DB

Team shall coordinate with GDOT throughout the Project to ensure information is shared in a timely manner and effective resources are allocated for outreach needs.

The PICP shall provide a protocol for communicating with Project Stakeholders in coordination with GDOT. GDOT will approve all Project Stakeholder communications. GDOT and the DB Team will share responsibilities for disseminating information to the public, as specified in the PICP.

The PICP shall detail the communication hierarchy for information distribution related to compliance with approved Environmental Documents, as described in Section 4 (Environmental). The PICP shall also include names and contact information, including Emergency contact information, and the preferred methods of routine, and Emergency communication distribution. The DB Team shall ensure that any changes to contact information pertaining to the Comprehensive Environmental Protection Plan (CEPP) are incorporated into the PICP within five (5) business days.

### **3.2.2 Project Information Coordinator**

DB Team shall designate a member of the project team or subconsultant team to carry out the role of the Public Information Coordinator (PIC), who will lead the DB Team's responsibility for public information and involvement activities on a day-to-day basis throughout the Term of the Agreement until Final Acceptance. The PIC should be proficient in Microsoft Word, PowerPoint and InDesign or similar graphic design software. Relevant communications experience is preferred. The PIC or another member of the DB Team shall be available 24 hours a day, seven days a week.

PIC responsibilities shall include coordinating with GDOT to facilitate communication between the DB Team, GDOT personnel (including GDOT's Communications Officers), and Project Stakeholders. Responsibilities also shall include interacting with affected stakeholders and representing the interests of the Project at public meetings and other formal and informal outreach events, upon GDOT request.

The PIC shall assist GDOT by performing the following responsibilities to implement the PICP:

- Notify GDOT no less than twenty one (21) days in advance of the start of any construction activity that will impact the general public such as any changes in traffic patterns to the existing general purpose lanes or existing transportation facilities so that GDOT can communicate the potential impacts of these activities with all Project Stakeholders to include the general public, the media and adjacent Government Entities.
- Disseminate project Public Information materials in community locations specified in the PICP or as requested by GDOT.
- Be available to answer questions via a direct telephone number, U.S. mail, email or in person during normal business hours and Emergency situations. If the PIC is unavailable, these duties shall be fulfilled by another designated member of the DB Team as defined in the PICP.

- Maintain an electronic database to document public inquiries and complaints including, at a minimum, the complaint, the response and the date the complaint was resolved. The PIC will make this information available to GDOT at a frequency defined in the PICP and upon request.
- Participate, as requested, in communication with Project Stakeholders and GDOT.
- Provide supportive information for media and citizen inquiries when requested by GDOT.
- Staff project outreach events upon request from GDOT.
- Provide GDOT with information, maps and print or digital graphics on project status, traffic impacts and other information for communicating to key stakeholder groups and the general public. Information may be communicated using channels including, but not limited to email, text, a GDOT-hosted project webpage, outreach presentations, newsletters, public meetings, video, and social media.

### **3.2.3 Public and Stakeholder Meetings**

When requested by GDOT, the DB Team shall participate and provide necessary staff support in meetings with the public arranged and conducted by GDOT. During such meetings, the DB Team shall be in attendance to assist GDOT in providing the public with an update on the progress the Project and discussing key issues as they emerge, or as requested by GDOT.

The PIC shall assist in implementing public and stakeholder meetings by performing the following responsibilities:

- Conduct media and other stakeholder group tours of the Project, as requested.
- Upon request and with GDOT's acceptance, the PIC and other DB Team members shall attend meetings with key elected officials, the general public, representatives of civic organizations, businesses, and special interest groups within the Project corridor (individually or in groups) for the purpose of informing and building rapport with affected project stakeholders.
- Support GDOT in the planning and implementation of up to ten (10) public meetings, up to twelve (12) stakeholder working group meetings, and up to forty (40) public outreach presentations to inform stakeholders and the public of construction plans and detours. Support shall include, but not be limited to attendance of PIC and other SME's at meetings, upon request.

### **3.2.4 Monthly Public Information and Communications Reporting**

The DB Team shall provide a monthly Public Information and Communication Report to GDOT. The report shall include, but not be limited to, the following information:

- Environmental, design, and construction issues affecting adjacent residential areas, frontage roads, local streets, and utilities, grading, drainage, and noise, retaining walls, lane closures, ramp closures, local road closures and traffic shifts (changes in any use of exiting traffic);

- Street and roadway detour design and implementation;
- Scheduling and duration of work, including hours of construction;
- Haul routes;
- Methods to minimize noise and dust;
- Environmental mitigation measures;
- Number of public inquiries and complaints received, including an attachment of details and resolution;
- Number of safety or emergency incidents, if any; and
- Thirty (30)-day look-ahead of anticipated construction activities.

### **3.2.5 Emergency Event Communications**

For all Emergency events, such as vehicle collisions, ice/snow conditions, flooding, Hazardous Material spills, construction failures or injuries, Force Majeure Events or other unforeseen events, the PIC shall take timely and appropriate action to inform GDOT of all pertinent details. The PIC shall provide these details through the agreed upon protocol to ensure effective and timely communication to GDOT representatives who will, in turn, inform the media, elected and local officials, and all key stakeholders.

As mentioned in Section 3.2.1, the DB Team shall provide input into an Emergency Response plan in collaboration with GDOT, to define communications protocol in Emergency situations. This plan shall include a twenty four (24) hour contact list and protocol (hierarchy of team notification) for all of the Project team members including the local Emergency response members adjacent to the Project, counties, municipalities, utility companies with facilities within Project limits and FHWA. These tools include: overhead changeable message signs (CMS), temporary changeable message signs, GDOT's web-based information tool, email/web alerts, telephone notification, texts, facsimiles, and media releases/interviews, as appropriate. The DB Team shall continue to provide updated information, as available and on a timely basis, until the Emergency has been resolved.

In the event of an unforeseen Emergency, timely notification shall occur as soon as practicable, but no longer than fifteen (15) minutes from the start of the occurrence. If advance warning is available for an Emergency event such as ice/snow, timely notification shall mean as soon as practicable, but no more than fifteen (15) minutes from the time the information was made available. In both situations, the DB Team shall continue to provide updated information to GDOT, as available and on a timely basis, until the Emergency has been resolved.

### **3.2.6 Public Information**

The PIC and DB Team shall assist GDOT in the development of and review of public information materials. Activities shall include:

- The PIC and DB Team shall assist in the review of materials regarding Project-related subjects, for use in meetings, news releases, telephone correspondence, newsletters, email, GDOT’s web based information tool, overhead dynamic and changeable message board signs, web alerts, maps, displays, renderings, presentations, digital renderings/animations, photos, brochures, pamphlets and any other relevant public information materials.
- The PIC and DB Team shall provide weekly Traffic Interruption Request summaries for public information purposes. The PIC will provide draft press releases and detour maps of planned impacts to affected stakeholders or the traveling public. The DB Team shall provide the PIC lane closure and detour requirements 72 hours in advance of closure and detour activities.
- The PIC shall provide narrative content, photos and graphic information for weekly social media posts and monthly project e-newsletters.
- The PIC and DB Team shall support the planning and implementation of special events including a groundbreaking ceremony at commencement of construction and ribbon cutting at Project completion.
- The DB Team shall supply high-quality construction progress photos and video (detail images and aerial) monthly and at major construction milestones.
- The DB Team also shall assist in the development of Project-related information for the GDOT Project website, including but not limited to:
  - Narrative project updates
  - Project maps
  - Digital renderings and/or animations
  - Frequently asked questions (FAQs)
  - Current Project activities addressing design and construction
  - Timing of road and ramp closures and openings
  - Any utility disruptions, and
  - Recommended route alternatives during closures

### 3.2.7 Public Involvement Action Items

Table 3-1 summarizes the responsibilities for the DB Team and GDOT on each of the project information tasks. It also describes the general timeframe and audience for these activities.

**Table 3-1**

| Task   | Audience       | Timeframe           | Responsibility                   |
|--|----------------|---------------------|----------------------------------|
| Responding to General Public Inquiries/ comments | General Public | Duration of Project | DB Team with oversight from GDOT |

| Task   | Audience                   | Timeframe                                       | Responsibility   |
|--|----------------------------|---|--|
| Continuous Communications with Elected/ Public Officials | All Audiences              | Monthly at Key Milestones and as requested      | GDOT to coordinate and facilitate with support from DB Team  |
| Public Information Meetings                              | General Public             | Key Milestones and as requested                 | GDOT to coordinate and facilitate with support from DB Team  |
| Public Outreach Meetings                                 | Selected Groups            | Duration of Project, as Necessary               | GDOT to coordinate and facilitate with support from DB Team  |
| Traffic Impact and Lane, Ramp and Road Closure Notices   | General Public             | Duration of Construction Period                 | <p>DB Team to provide information to GDOT in advance of traffic impacts. Weekday traffic interruptions for the next week shall be disseminated by the DB Team no later than noon the Thursday before.</p> <p>Weekend traffic interruptions for the next weekend shall be disseminated by the DB Team no later than the close of business the Wednesday before.</p> <p>Ramp and road closure notices shall be requested by the DB Team a minimum of two weeks prior to the closure.</p> |
| Website Information                                      | General Public             | Duration of Project                             | GDOT with support from DB Team   |
| News Releases and Traffic Advisories                     | General Public             | Duration of Project                             | GDOT with support from DB Team   |
| Crisis Communications                                    | General Public             | As Necessary During Project                     | GDOT with support from DB Team per Emergency Plan  |
| Responding to News Media Inquiries                       | General Public (via media) | Duration of Project                             | GDOT Project Support Staff to serve as media contact with support from DB Team   |
| Electronic Communications, Social Media, E-newsletter    | All Audiences              | Duration of Project                             | GDOT with support from DB Team   |
| Special Events Highlighting Project Milestones           | Targeted Stakeholders      | Groundbreaking and Open to Traffic              | GDOT with support from DB Team   |
| Print Materials  | All Audiences              | Duration of Project                             | GDOT with support from DB Team   |
| Project Site Visits                                      | Special Groups             | Special Coordination During Construction Period | DB Team to coordinate with staffing by appropriate technical staff in collaboration with GDOT  |

| Section                                      | Volume | Submittal Item  | Format  | Quantity                | Delivery Date   | Review Period* (Days) |
|--|--------|---|---------|-------------------------|---|-----------------------|
| <b>Public Information and Communications</b> |        |   |         |                         |   |                       |
| 1  | 2      | GDOT–DB Team Public Information and Communications Plan                                       | AR, PDF | 1                       | Within 30 Days from NTP 1                                       | 30                    |
| 1  | 2      | Agenda, Meeting Plan, Logistical Information, and Presentation Outlines for Outreach Meetings | AR, PDF | 52                      | 30 Days in Advance of Meeting                                   | 14                    |
| 1  | 2      | Presentation Materials for Outreach/Stakeholder Meetings                                      | AR, PDF | 52                      | 14 Days in Advance of Meeting                                   | 14                    |
| 1  | 2      | Public Information Materials  | AR, PDF | See Section 3, Volume 2 | As needed   | 14                    |
| 1  | 2      | Public Information and Communication Report   | AR, PDF | 18                      | Monthly   | 14                    |
| 1  | 2      | Construction Progress Photos and Video  | AR, PDF | 12                      | Monthly or as needed based on construction milestones or events | 14                    |

## 4 ENVIRONMENTAL

### 4.1 General Requirements

*No additional requirements*

### 4.2 Environmental Approvals

*Supplement the following to Section 4.2 of Volume 3*

#### 4.2.1 Responsibilities Regarding Environmental Studies

DB Team shall implement the traffic detour plan per the Environmental Document. GDOT Review and Approval of the detour is required.

The durations in the Table below include required public comment period and responding to the public comments.

**Table 4-1 GDOT Led NEPA Approval**

| NEPA Document*                           | Governmental Entity Approval Time Frame   | Reviewing Governmental Entity |
|--|---|-------------------------------|
| Public Involvement for Noise Wall Voting | 75 days   | FHWA                          |
| Ecology Report and Addendum              | Review period 1: 30 days<br>Review period 2: 14 days                                    | GDOT                          |
|  | 30 days   | USACE                         |
|  | 45 days (informal section 7)  | USFWS                         |
|  | 135 days<br>(for formal Section 7)  | USFWS                         |
|  | 45 days<br>(for protected species - for Fish and Wildlife Coordination Act concurrence) | USFWS                         |

|   |         |   |
|---|---------|---|
| Section 106   | 30 days | GDOT                                      |
|   | 45 days | USACE                                     |
|   | 30 days | State Historic Preservation Office (SHPO) |
| Noise Report and Addendum                                 | 60 days | GDOT                                      |
| Air Quality Report and Addendum                           | 30 days | GDOT                                      |
| NEPA Approval Reevaluation Public Involvement (if needed) | 45 days | FHWA                                      |

#### **4.2.2    *GDOT Review and Approval of Environmental Permits***

*No additional requirements*

### **4.3    Required Submittals**

*No additional requirements*

## 5 RESERVED

## **6 UTILITY ADJUSTMENTS**

### **6.1 General Requirements**

#### **6.1.1 Utility Adjustment Relocation Costs**

*No additional requirements*

#### **6.1.2 When Utility Adjustment is Required**

*No additional requirements*

#### **6.1.3 Certain Components of the Utility Adjustment Work**

*No additional requirements*

##### **6.1.3.1 Coordination**

*Supplement the following to Section 6.1.3.1 of Volume 3*

See the Attachment 6-1: Memorandums of Understanding for requirements related to coordination and relocations for all Utility owners within the Project Limits.

##### **6.1.3.2 Betterments**

*No additional requirements*

##### **6.1.3.3 Protection in Place**

*No additional requirements*

##### **6.1.3.4 Abandonment and Removal**

*No additional requirements*

##### **6.1.3.5 Service Lines and Utility Appurtenances**

*No additional requirements*

##### **6.1.3.6 Early Adjustments**

*No additional requirements*

#### **6.1.4 Recordkeeping**

*No additional requirements*

### **6.2 Administrative Requirements**

*No additional requirements*

### **6.2.1 Standards**

*No additional requirements*

### **6.2.2 Communications**

*No additional requirements*

#### **6.2.2.1 Communication with Utility Owners Meetings and Correspondence**

*No additional requirements*

### **6.2.3 Worksite Utility Coordination Supervisor**

*No additional requirements*

### **6.2.4 Real Property Matters**

*No additional requirements*

#### **6.2.4.1 Documentation of Existing Utility Property Interests - Affidavits**

*No additional requirements*

#### **6.2.4.2 Acquisition of Replacement Utility Property Interests**

*No additional requirements*

#### **6.2.4.3 Georgia Utility Permit**

*No additional requirements*

#### **6.2.4.4 Documentation Requirements**

*No additional requirements*

## **6.3 Design**

### **6.3.1 DB Team's Responsibility for Utility Identification**

*No additional requirements*

### **6.3.2 Technical Criteria and Performance Standards**

*No additional requirements*

### **6.3.3 Memorandum of Understanding (MOU)**

*No additional requirements*

#### **6.3.4 Utility Work Plans**

*No additional requirements*

##### **6.3.4.1 Plans Prepared by DB Team**

*No additional requirements*

##### **6.3.4.2 Plans Prepared by the Utility Owner**

*No additional requirements*

##### **6.3.4.3 Design Documents**

*No additional requirements*

##### **6.3.4.4 Certain Requirements for Underground Utilities**

*No additional requirements*

##### **6.3.4.5 Utility Work Plan**

*No additional requirements*

### **6.4 Construction**

#### **6.4.1 Reserved**

#### **6.4.2 General Construction Criteria**

*No additional requirements*

#### **6.4.3 Inspection of Utility Owner Construction**

*No additional requirements*

#### **6.4.4 Scheduling Utility Adjustment Work**

*No additional requirements*

#### **6.4.5 Standard of Care Regarding Utilities**

*No additional requirements*

#### **6.4.6 Emergency Procedures**

*No additional requirements*

#### **6.4.7 Switch Over to New Facilities**

*No additional requirements*

#### **6.4.8 Traffic Control**

*No additional requirements*

### **6.5 Deliverables**

*No additional requirements*

#### **6.5.1 Utility Work Plan Submittals**

*No additional requirements*

#### **6.5.2 Preliminary Utility Status Report**

*No additional requirements*

#### **6.5.3 Subsurface Utility Engineering (SUE) Requirements**

*No additional requirements*

#### **6.5.4 Utility As-Built Requirements**

*No additional requirements*

## 7 RESERVED

## **8 GEOTECHNICAL**

### **8.1 General Requirements**

*No additional requirements*

### **8.2 Design Requirements**

#### **8.2.1 Subsurface Geotechnical Investigation by DB Team**

*Supplement the following to Section 8.2.1 of Volume 3*

The DB Team shall conduct bridge foundation investigations (BFI) for all new bridge construction. The DB Team shall conduct wall foundation investigations (WFI) for proposed walls. DB Team may accept and use the approved soil report for this project, however, the document is only provided as an RID and GDOT accepts no liability for the accuracy of the soils reports. If the DB Team chooses to use the approved soil report, the Engineer of Record (EOR) shall provide GDOT with a letter agreeing to the conditions of this section.

Spread footings in stream buffers are allowed if no other less impactful options are available.

#### **8.2.2 Dynamic Pile Testing**

*No additional requirements*

#### **8.2.3 Pavement Design**

*No additional requirements*

### **8.3 Construction**

*No additional requirements*

### **8.4 Deliverables**

*No additional requirements*

## **9 SURVEYING AND MAPPING**

### **9.1 General Requirements**

*No additional requirements*

### **9.2 Administrative Requirements**

*No additional requirements*

#### **9.2.1 Property Owner Notification**

*No additional requirements*

### **9.3 Design Requirements**

*No additional requirements*

#### **9.3.1 Units**

*No additional requirements*

#### **9.3.2 Survey Control Requirements**

*No additional requirements*

#### **9.3.3 Conventional Method (Horizontal & Vertical)**

*No additional requirements*

##### **9.3.3.1 Horizontal Accuracy Requirements for Conventional Surveys**

*No additional requirements*

##### **9.3.3.2 Vertical Accuracy Requirements for Conventional Surveys**

*No additional requirements*

#### **9.3.4 Reserved**

*No additional requirements*

#### **9.3.5 Right of Way Survey**

*No additional requirements*

##### **9.3.5.1 Accuracy Standard**

*No additional requirements*

### **9.3.6 Survey Records and Reports**

*No additional requirements*

## **9.4 Construction Requirements**

### **9.4.1 Units**

*No additional requirements*

### **9.4.2 Construction Surveys**

*No additional requirements*

## **9.5 Deliverables**

### **9.5.1 Final ROW Surveying and Mapping**

*No additional requirements*

### **9.5.2 ROW Monuments**

*No additional requirements*

## **10 GRADING**

### **10.1 General**

*Supplement the following with Section 10.1 of Volume 3*

Clearing is only required for the areas impacted by the construction and staging of the project. If clearing is required on a cut-slope, the DB Team shall clear to the top of the slope.

### **10.2 Preparation within Project Limits**

*No additional requirements*

### **10.3 Slopes and Topsoil**

*No additional requirements*

### **10.4 Deliverables**

*No additional requirements*

#### **10.4.1 Released for Construction Documents**

*No additional requirements*

# 11 ROADWAYS

## 11.1 General Requirements

*No additional requirements*

## 11.2 Design Requirements

*Supplement the following to Section 11.2 of Volume 3*

### Design Criteria Order of Precedence

The following requirements shall be adhered to for the design of the Project. The plans provided in the RIDs are provided for reference only and may contain or conform to some but not all of the design requirements herein. In the event of any conflict, ambiguity or inconsistency, among the following design criteria, the order of precedence, from highest to lowest, one being higher than two, shall be as follows:

1. Allowable design exception(s)/variance(s) as set forth in Section 11.2.3
2. Select Design Criteria as set forth in Volume 2, Section 11.2
3. Volume 2 and Volume 2 Attachments (Technical Provisions)
4. Volume 3 and Volume 3 Attachments (Programmatic Technical Provisions)
5. Volume 3 Manuals (Technical Documents)

### 11.2.1 Typical Section(s) and Pavement Design

**Table 11-1: Typical Section(s) for Roadway Design**

| Roadway                     | Directional Number of Lane(s)                                 | Lane Width(s) (ft)  | Median Type            | Inside Shoulder Width(s) (ft)                | Outside Shoulder Width(s) (ft)               |
|-----------------------------|---|---|------------------------|--|--|
| I-85 NB from I-985 to SR 20 | 1 Managed Lane, 3 General Purpose Lanes, and 1 Auxiliary Lane | 12 ft lanes with a 2 ft buffer between Managed Lane and General Purpose Lanes | Grassed variable width | Retain shoulder constructed under PI# 110600 | Retain shoulder constructed under PI# 110600 |

| <b>Roadway</b>  | <b>Directional Number of Lane(s)</b>         | <b>Lane Width(s) (ft)</b>   | <b>Median Type</b>     | <b>Inside Shoulder Width(s) (ft)</b>         | <b>Outside Shoulder Width(s) (ft)</b>        |
|---|--|---|------------------------|--|--|
| I-85 SB from SR 20 to I-985                           | 1 Managed Lane and 3 General Purpose Lanes   | 12 ft lanes with a 2 ft buffer between Managed Lane and General Purpose Lanes | Grassed variable width | Retain shoulder constructed under PI# 110600 | Retain shoulder constructed under PI# 110600 |
| I-85 NB from SR 20 to the end of Managed Lane*        | 1 Managed Lane and 3 General Purpose Lanes   | 12 ft lanes with a 2 ft buffer between Managed Lane and General Purpose Lanes | Concrete Barrier       | Retain shoulder constructed under PI# 110600 | Retain shoulder constructed under PI# 110600 |
| I-85 SB from Hamilton Mill Rd to SR 20*               | 1 Managed Lane and 3 General Purpose Lanes   | 12 ft lanes with a 2 ft buffer between Managed Lane and General Purpose Lanes | Concrete Barrier       | Retain shoulder constructed under PI# 110600 | Retain shoulder constructed under PI# 110600 |
| I-85 NB from end of Managed Lane to Hamilton Mill Rd* | 3 General Purpose Lanes and 1 Auxiliary Lane | 12  | Concrete Barrier       | Retain shoulder constructed under PI# 110600 | Retain shoulder constructed under PI# 110600 |

| Roadway  | Directional Number of Lane(s) | Lane Width(s) (ft) | Median Type      | Inside Shoulder Width(s) (ft) | Outside Shoulder Width(s) (ft) |
|--|-------------------------------|--------------------|------------------|-------------------------------|--------------------------------|
| I-85 NB and SB from Hamilton Mill Rd to STA 964+50 in Exhibit 2 of the DBA | 3 General Purpose Lanes       | 12                 | Concrete Barrier | 12                            | 14                             |
| Spout Springs Rd   | 1                             | 12                 | N/A              | N/A                           | 8**                            |
| Flowery Branch Rd  | 1                             | 12                 | N/A              | N/A                           | 8**                            |
| Liberty Church Rd/Jesse Cronin Rd  | 1                             | 12                 | N/A              | N/A                           | 8**                            |

\*Managed Lanes will terminate and start within the Project limits in the same configuration as constructed by the PI 110600 Project (see final plans in RIDs).

\*\* Additional 2 feet shall be provided in addition to listed usable shoulder if there is a barrier or wall. 6 feet 6 inches minimum of shoulder shall be paved.

In addition to the above requirements, the DB Team shall design and construct median barrier gates for I-85 at the locations within the project limits for the locations shown in Attachment 11-1. These gates shall be automated (electrically powered) with a minimum forty (40) foot opening. These gates shall meet the requirements of the National Cooperative Highway Research Program (NCHRP) Report 350 test level 3 or greater.

The DB Team shall remove and upgrade all existing guardrail from Hamilton Mill Rd to STA 964+50 in Exhibit 2 of the DBA. Guardrail on the outside shoulder shall be replaced even if proposed work does impact existing guardrail. Upgrades for guardrail on ramps will be limited to gore area.

The DB Team shall salvage all removed cable barrier, posts, and guardrail. These salvaged items shall be delivered to the Jackson County Maintenance Headquarters located at 369 Airport Road, Jefferson, GA 30549. Call the District Maintenance Engineer at 770-531-5729 a minimum of forty-eight (48) hours in advance to coordinate delivery.

#### Table 11-2: Pavement Design(s)

The I-85 pavement shall be Asphaltic Concrete Pavement or Portland Cement Concrete Pavement as noted below. DB Team shall provide consistent material for the full lane width. Bridge Overpass Approaches shall be Asphaltic Concrete Pavement.

| <b>Asphaltic Concrete Pavement Alternative</b>  |                    |
|---|--------------------|
| <b>I-85 General Purpose Lane Widening and Inside Shoulder<br/>(OGFC layer only needed for 18 inches of Inside Shoulder)</b> |                    |
| <b>Material</b>   | <b>Spread Rate</b> |
| 12.5 MM OGFC  | 100 LBS/SY         |
| RECYCLED ASPH CONC 12.5 MM, SMA, GP 2 ONLY,<br>INCL POLYMER-MODIFIED BITUM MATL & H LIME                                    | 220 LBS/SY         |
| RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1<br>OR 2, INCL BITUM MATL & H LIME  | 220 LBS/SY         |
| RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1<br>OR 2, INCL BITUM MATL & H LIME  | 1320 LBS/SY        |
| 12" GRADED AGGREGATE BASE   | N/A                |
| <b>Outside Shoulder<br/>(OGFC layer only needed for 18 inches of Outside Shoulder)</b>                                      |                    |
| <b>Material</b>   | <b>Spread Rate</b> |
| Variable Mill   | N/A                |
| 12.5 MM OGFC  | 100 LBS/SY         |
| RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 2<br>ONLY, INCL POLYMER MODIFIED BITUM MATL & H<br>LIME                            | 165 LBS/SY         |
| <b>I-85 General Purpose Lane Mill and Overlay</b>   |                    |
| <b>Material</b>   | <b>Spread Rate</b> |
| Mill 3"   | N/A                |
| 12.5 MM OGFC  | 100 LBS/SY         |

|  |                    |
|--|--------------------|
| RECYCLED ASPH CONC 12.5 MM, SMA, GP 2 ONLY,<br>INCL POLYMER-MODIFIED BITUM MATL & H LIME | 220 LBS/SY         |
| <b>Bridge Overpass Approaches</b>  |                    |
| <b>Material</b>  | <b>Spread Rate</b> |
| RECYCLED ASPH CONC 9.5 MM SUPERPAVE, TYPE<br>II, INCL BITUM MATL & H LIME                | 135 LBS/SY         |
| RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1<br>OR 2, INCL BITUM MATL & H LIME               | 220 LBS/SY         |
| RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1<br>OR 2, INCL BITUM MATL & H LIME               | 770 LBS/SY         |
| 12" GRADED AGGREGATE BASE  | N/A                |
| <b>Bridge Overpass Approaches Shoulders</b>  |                    |
| RECYCLED ASPH CONC 9.5 MM SUPERPAVE, TYPE<br>II, INCL BITUM MATL & H LIME                | 135 LBS/SY         |
| RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1<br>OR 2, INCL BITUM MATL & H LIME               | 220 LBS/SY         |
| 6" GRADED AGGREGATE BASE   | N/A                |

|   |                    |
|---|--------------------|
| <b>Portland Cement Concrete Pavement Alternative<br/>I-85 General Purpose Lane Widening and Inside Shoulder</b> |                    |
| <b>Material</b>   | <b>Spread Rate</b> |
| 12" Inches Jointed Portland Cement Concrete Pavement  | N/A                |
| RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1<br>OR 2, INCL BITUM MATL & H LIME                                      | 330 LBS/SY         |
| 8" GRADED AGGREGATE BASE  | N/A                |

| <b>Outside Shoulder</b>  |                    |
|--|--------------------|
| <b>Material</b>  | <b>Spread Rate</b> |
| 12" Inches Jointed Portland Cement Concrete Pavement                             | N/A                |
| RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1<br>OR 2, INCL BITUM MATL & H LIME       | 330 LBS/SY         |
| 8" GRADED AGGREGATE BASE   | N/A                |
| <b>I-85 General Purpose Lane Mill and PCC Overlay</b>                            |                    |
| <b>Material</b>  | <b>Spread Rate</b> |
| Variable Mill all existing asphalt to existing Portland<br>Cement Concrete layer | N/A                |
| 12" Inches Jointed Portland Cement Concrete Pavement                             | N/A                |
| RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1<br>OR 2, INCL BITUM MATL & H LIME       | 330 LBS/SY         |

### 11.2.2 Additional Roadway Design Requirements

Table 11-4: Additional Design Criteria For Design-Build Project

| <b>Roadway</b>  | <b>Functional Classification</b>    | <b>Minimum Design<br/>Speed, mph</b> |
|---|-------------------------------------|--------------------------------------|
| I-85<br>North of I-985 to Hamilton Mill<br>Rd                           | Urban Interstate Principal Arterial | 70                                   |
| I-85<br>North of I-985<br>(Managed Lanes)                               | Urban Interstate Principal Arterial | 70                                   |
| I-85 North of Hamilton Mill to<br>STA 964+50 in Exhibit 2 of the<br>DBA | Rural Interstate Principal Arterial | 70                                   |
| Spout Springs Rd  | Urban Collector                     | 40                                   |
| Flowery Branch Rd   | Urban Local                         | 35                                   |

|                                   |                       |    |
|-----------------------------------|-----------------------|----|
| Liberty Church Rd/Jesse Cronin Rd | Rural Minor Collector | 35 |
|-----------------------------------|-----------------------|----|

For the overpass bridges, the DB Team shall place full depth pavement a minimum of fifty (50) linear feet from the approach slab limits on each side of the bridge. Beyond this requirement, pavement shall be designed by the EOR for alignment tie-ins. In no case shall the existing pavement be narrowed.

All approach slabs shall be thirty (30) feet in length and adhere to GDOT Standards.

#### **11.2.3 Allowable Design Exception(s)/Variance(s)**

No design exceptions or additional variances proposed by the DB Team shall be allowed. Any existing conditions that do not meet the requirements of the AASHTO “10 Controlling Criteria” and/or the GDOT Standard Design Criteria, as denoted in the GDOT Design Policy Manual, must be presented to GDOT and shall be upgraded to meet the required criteria or mandatory practice with the proposed design of the Project.

DB Team is permitted to retain Design Deviations that are present within the existing conditions. Any existing Design Deviations that are identified within the Project limits and that are intended to be retained in the proposed design must be presented to GDOT.

#### **11.2.4 Visual Quality**

*No additional requirements*

#### **11.2.5 Permanent Lighting**

*No additional requirements*

#### **11.2.6 Related Transportation Facilities**

*Supplement the following to Section 11.2.6 of Volume 3*

DB Team shall design and construct all new roadways and bridges to accommodate the planned expansions or updates of Related Transportation Facilities. This includes the design and construction of the I-85 Managed Lanes extension, new general purpose interchanges on I-85 at SR 324/Gravel Springs Road, and the SR 211 Widening at I-85 interchange. The Gravel Springs interchange is being designed by Gwinnett County. The I-85 Managed Lanes extension and SR 211 Widening projects are being designed and constructed by GDOT. The DB Team shall coordinate their final design and construction with Gwinnett County and GDOT to reduce and minimize conflicts with these projects.

### **11.3 Deliverables**

*No additional requirements*

## **12 DRAINAGE**

### **12.1 General Requirements**

*No additional requirements*

### **12.2 Administrative Requirements**

#### **12.2.1 Data Collection**

*No additional requirements*

#### **12.2.2 Coordination with Other Agencies**

*No additional requirements*

### **12.3 Design Requirements**

*No additional requirements*

#### **12.3.1 Surface Hydrology**

*No additional requirements*

##### **12.3.1.1 Design Frequencies**

*No additional requirements*

##### **12.3.1.2 Hydrologic Analysis**

*No additional requirements*

#### **12.3.2 Storm Sewer Systems**

Supplement the following to Section 12.3.2 of Volume 3

All installed pipes must be RCP. Where proposed construction impacts existing pipes/culverts or the hydraulic functionality of those pipes/culverts, the structural and hydraulic sufficiency must be demonstrated to the Department by the Engineer of Record for the pipes/culverts to remain in place. Rehabilitation of pipes and box culverts will be allowed as long as hydraulic capacity and structural integrity are achieved.

##### **12.3.2.1 Pipes**

*No additional requirements*

##### **12.3.2.2 Municipal Separate Storm Sewer System (MS4)**

*No additional requirements*

##### **12.3.2.3 Gutter Spread/Ponding**

*No additional requirements*

### **12.3.3 Hydraulic Structures (Culverts/Bridges)**

*Supplement the following to Section 12.3.3 of Volume 3*

Intermediate bents shall have a skew from the bridge centerline to align with the stream channel flow.

No bents shall be located within the stream channel.

The centerline of intermediate bents shall be at least 10 feet from the top of stream bank.

#### **12.3.3.1 Method Used to Estimate Flows**

*No additional requirements*

#### **12.3.3.2 Design Frequency**

*No additional requirements*

#### **12.3.3.3 Hydraulic Analysis**

*No additional requirements*

#### **12.3.3.4 Riverine Bridge/Bridge Culvert Design**

*No additional requirements*

#### **12.3.3.5 Bridge Deck Drainage**

*No additional requirements*

#### **12.3.3.6 Drainage Report for Major Stream Crossings**

*No additional requirements*

## **12.4 Construction Requirements**

*No additional requirements*

## **12.5 Deliverables**

*No additional requirements*

## 13 STRUCTURES

### 13.1 General Requirements

*No additional requirements*

### 13.2 Design Requirements

#### 13.2.1 Design Parameters

*Supplement the following to Section 13.2 of Volume 3*

Existing bridges shall be replaced in accordance with the requirements listed in this section.

Table 13-1: Bridge Requirements

| Bridge ID     | Bridge Location                      | Description   |
|---------------|--------------------------------------|---|
| ID 135-0036-0 | Spout Springs Road Overpass at I-85  | Full replacement requiring new super structure, sub structure and piers/foundations. The reuse of existing elements will not be allowed. New bridge shall accommodate typical section as defined in Table 11-1. New bridge shall provide a twenty-eight (28) foot unobstructed clear zone from the outside edge of proposed travel way to the face of a Type 7 barrier in front of an MSE wall, column, or roadway embankment. No obstruction shall be placed within the clear zone. In addition, shall accommodate two (2) twelve (12) foot through lanes and a future twelve (12) foot flush median on Spout Springs Road. The bridge shall be striped for two (2) twelve (12) foot through lanes to match the two (2) lane roadway approach. Minimum vertical clearance over I-85 lanes and shoulders shall be seventeen (17) feet. If a wall is necessary on the approach roadway, bridge shoulder shall match full roadway shoulder. |
| ID 135-0070-0 | Flowery Branch Road Overpass at I-85 | Full replacement requiring new super structure, sub structure and piers/foundations. The reuse of existing elements will not be allowed. New bridge shall accommodate roadway typical section as defined in Table 11-1. New bridge shall provide a twenty-eight (28) foot unobstructed clear zone from the outside edge of proposed travel way to the face of a Type 7 barrier in front of an MSE wall, column, or roadway embankment. No obstruction shall be placed within the clear zone . Minimum vertical clearance over I-85  |

|               |  |  |
|---------------|--|--|
|               |  | lanes and shoulders shall be seventeen (17) feet. If a wall is necessary on the approach roadway, bridge shoulder shall match full roadway shoulder.   |
| ID 013-0022-0 | I-85 NB over Mulberry River                            | Full replacement requiring new super structure, sub structure and piers/foundations. The reuse of existing elements will not be allowed. Endrolls at bridge abutments shall utilize a 2:1 slope normal to the end bent.  |
| ID 013-0023-0 | I-85 SB over Mulberry River                            | Full replacement requiring new super structure, sub structure and piers/foundations. The reuse of existing elements will not be allowed. Endrolls at bridge abutments shall utilize a 2:1 slope normal to the end bent.  |
| ID 157-0020-0 | Liberty Church Road/Jesse Cronin Road Overpass at I-85 | Full replacement requiring new super structure, sub structure and piers/foundations. The reuse of existing elements will not be allowed. New bridge shall accommodate roadway typical section as defined in Table 11-1. New bridge shall provide a twenty-eight (28) foot unobstructed clear zone from the outside edge of proposed travel way to the face of a Type 7 barrier in front of an MSE wall, column, or roadway embankment. No obstruction shall be placed within the clear zone. . Minimum vertical clearance over I-85 lanes and shoulders shall be seventeen (17) feet. If a wall is necessary on the approach roadway, bridge shoulder shall match full roadway shoulder. |

Existing metal handrail removed from any of the bridges to be replaced or rehabilitated shall be salvaged and stored with GDOT.

Superelevation transitions shall not be allowed on bridges.

The location of the low-point of a vertical curve on a bridge or approach slab shall not be allowed.

Final Bridge Plan acceptance shall be contingent on the acceptance of the BFI.

Final Wall Plan acceptance shall be contingent on the acceptance of the WFI.

All bridges and retaining walls shall be designed in accordance with AASHTO LRFD 7<sup>th</sup> Edition, 2014.

### **13.2.2 Bridge Decks and Superstructures**

Supplement the following to Section 13.2.1 of Volume 3

Maximum girder spacing for plate girder bridges shall be ten feet six inches (10'-6").

Unpainted weathering steel may be used. If unpainted weathering steel is used, paint beam ends at expansion joints and ends of bridge for a distance of 1.5 times the beam depth.

The paving rest shall be twelve inches (12") wide.

Pot bearings shall not be used.

Groove the entire length of the bridges transversely as per sub section 500.3.05.T.9.C of the Georgia DOT Specifications.

### **13.2.3 Bridge/ Retaining Wall Foundations**

*Supplement the following to Section 13.2.3 of Volume 3*

Concrete pile encasements shall be used for steel h-piles located within the limits of design flood.

### **13.2.4 Bridge Railing and Barriers**

*No additional requirements*

### **13.2.5 Retaining Walls**

**Where retaining walls are used, the DB Team shall provide ashlar finish. The ashlar finish shall match the pattern approved by the Department in Section 22 of Volume 2.Aesthetics**

*No additional requirements*

### **13.2.6 Drainage Structures**

*No additional requirements*

### **13.2.7 Sign, Illumination, and Traffic Signal Supports**

*No additional requirements*

### **13.2.8 Widening/Modification of Existing Structure**

*No additional requirements*

### **13.2.9 Reserved**

## **13.3 Construction Requirements**

*Supplement the following to Section 13.3*

Refer to Section 18 for Traffic Control requirements related to bridge construction.

Accelerated bridge construction methods may be utilized to construct new bridges and rehabilitate or replace existing bridges on the project. The chosen method(s) is subject to review by GDOT to ensure compliance with project specifications as well as no adverse safety and schedule impacts to the travelling public.

All welding on GDOT projects shall be performed by certified welders that have in their possession a current welding certification card issued by the Office of Materials and Testing. Only use E70XX (excluding E7014 and E7024) low hydrogen electrodes for manual shielded metal arc welding.

#### **13.3.1 Concrete Finishes**

*No additional requirements*

#### **13.3.2 Structure Metals**

*No additional requirements*

### **13.4 Final Bridge Inspection Prior to Service Commencement**

*No additional requirements*

### **13.5 Deliverables**

*No additional requirements*

## 14 RESERVED

## 15 RESERVED

## **16 SIGNING, PAVEMENT MARKING, SIGNALIZATION**

### **16.1 General Requirements**

*Supplement the following to Section 16.1 of Volume 3.*

Your Dollars Building A Better Georgia Logo Signs

The Department will provide to the DB Team, two (2) “Your Dollars Building A Better Georgia Logo” signs either 24” X 36” or 36” X 48”. The signs shall be installed by the DB Team on each end of the Project, prior to beginning construction. The signs shall be removed by the DB Team when the Contract Time Charges are stopped by the Department. Upon removal, the signs will be returned to the Department or its Agent. The cost for installation, maintenance and removal of the signs shall be included in the overall price bid.

### **16.2 Administrative Requirements**

#### **16.2.1 Meetings**

*No additional requirements*

### **16.3 Design Requirements**

#### **16.3.1 Final Plans**

*No additional requirements*

#### **16.3.2 Permanent Signing and Delineation**

*Supplement the following to Section 16.3.2 of Volume 3*

For the overpass bridges, new W8-13 signs shall be required in advance of any bridge.

For the overpass bridges, all existing signs on the approach or at the bridge shall be reviewed by the Department. Signs no longer applicable shall be removed including but not limited to weight restriction signs, or narrow bridge signs, even if outside the proposed construction limits. All other existing signs on the approach or at the bridge shall be replaced.

#### **16.3.3 Project Signs – Outside the Existing and Proposed ROW**

*No additional requirements*

#### **16.3.4 Reserved**

#### **16.3.5 Specific Service Signs**

*No additional requirements*

#### **16.3.6 Sign Support Structures**

*No additional requirements*

### **16.3.7 Permanent Pavement Marking**

*No additional requirements*

### **16.3.8 Permanent Signalization**

*No additional requirements*

#### **16.3.8.1 Traffic Signal Requirements**

The DB Team shall design and install ramp meters, if warranted, per GDOT ramp meter warrants in Attachment 16-1. The DB Team shall use opening year traffic volumes for ramp-meter analysis.

#### **16.3.8.2 Traffic Signal Timing Plans**

*No additional requirements*

#### **16.3.8.3 Traffic Signal Permit**

*No additional requirements*

#### **16.3.8.4 Traffic Signal Support Structures**

*No additional requirements*

## **16.4 Construction Requirements**

### **16.4.1 Permanent Signing and Delineation**

Supplement the following to Section 16.1 of Volume 3.

The following signs shall be modified to accommodate the removal of the buffer / auxiliary lane between I-985 and Hamilton Mill Road:

Table 16-1: Overhead Sign Requirements

| <b>Overhead Structure Number / Station from 110600 Project (110600 Plans Provided as a RID)</b> | <b>Required Modification by I-85 Widening Project</b>   |
|---|---|
| Overhead Structure #E1140 / Sta. 4221+32, I-85 North Bound Lane (NBL)                           | Remove W4-2R Sign<br><br>Relocate E1-5aP and SPCL #52 sign toward the median over the new General Purpose Lane. |

| <b>Overhead Structure Number / Station from 110600 Project (110600 Plans Provided as a RID)</b> | <b>Required Modification by I-85 Widening Project</b>   |
|---|---|
| Overhead Structure #E1147 / Sta.4260+41, I-85 NBL   | Relocate SPCL #16 sign toward the median over the new two (2) foot Managed Lane buffer.   |
| Overhead Structure #E1176 / Sta. 334+83, I-85 NBL   | Remove W20-5aL Sign.  |
| Gravel Springs Bridge /Sta. 353+56, I-85 NBL  | Remove W4-2L.   |
| Overhead Structure #E1186 / Sta. 389+85 NBL   | Remove yellow background portion of sign and replace with green background on SPCL #65.   |
| Ground Mounted Sta. 2267+25 I-85 southbound SR 20 on ramp                                       | Remove W4-3 and Replace with Ramp Merge sign per MUTCD and GDOT Signing & Marking Guidelines.   |
| Overhead Structure #F1162 / Sta. 261+44, I-85 South Bound Lane (SBL)                            | Relocate SPCL #16 sign toward the median over the new two (2) foot Managed Lane buffer.   |
| Overhead Structure #F1165 / Sta. 278+52, I-85 SBL   | Remove W4-2R Sign<br><br>Relocate E1-5aP and SPCL #59 sign toward the median over the new General Purpose Lane.                         |
| Overhead Structure #F1184 / Sta. 379+30, I-85 SBL   | Relocate SPCL #16 sign toward the median over the new two (2) foot Managed Lane buffer.   |
| Overhead Structure #F1187 / Sta. 396+21, I-85 SBL   | Remove W4-2R Sign<br><br>Relocate E1-5aP and SPCL #66 sign toward the median over the new General Purpose Lane.                         |
| Overhead Structure #F1193 / Sta. 427+75, I-85 SBL   | Relocate SPCL #16 sign toward the median.<br><br>Relocate E1-5aP and SPCL #69 sign toward the median over the new General Purpose Lane. |
| Overhead Structure #F1203 / Sta. 479+08, I-85 SBL   | Reset Type III structure with E1-5aP / SPCL #73 signs on new foundation in median barrier.  |

| Overhead Structure Number /<br>Station from 110600 Project<br>(110600 Plans Provided as a RID) | Required Modification by I-85 Widening<br>Project   |
|--|---|
| Overhead Structure #F1208 / Sta.<br>505+54, I-85 SBL   | Reset Type III structure with E1-5aP / SPCL<br>#76 signs on new foundation in median barrier. |
| Overhead Structure #F1218 / Sta.<br>508+34, I-85 SBL   | Reset Type III structure with E1-5aP / SPCL<br>#78 signs on new foundation in median barrier. |

#### **16.4.2 Permanent Pavement Marking**

*No additional requirements*

#### **16.4.3 Permanent Signalization**

*No additional requirements*

### **16.5 Deliverables**

#### **16.5.1 Permanent Signing and Delineation**

*No additional requirements*

#### **16.5.2 Permanent Pavement Marking**

*No additional requirements*

#### **16.5.3 Permanent Signalization**

*No additional requirements*

## 17 INTELLIGENT TRANSPORTATION SYSTEMS

### 17.1 General Description

This specification addresses the requirements for the GDOT general purpose lane Intelligent Transportation System (GDOT ITS) including requirements for traffic surveillance, detection, traveler information dissemination, communication, and maintenance during construction.

The improvements, infrastructure, and responsibilities for GDOT ITS are generally described below.

#### 17.1.1 *General Purpose Lane ITS*

This work includes, but is not limited to, GDOT ITS, communication network, power, structures, and other required elements within the Right-of-Way required to accommodate the project. The GDOT ITS includes, but is not limited to, Changeable Message Signs (CMS), Microwave Detection Systems (MDS), Closed Circuit Television (CCTV) Pan Tilt Zoom (PTZ) cameras, Video Detection System (VDS), Communication Hub Buildings and HVAC systems, and the communication network including duct bank, the fiber backbone.

#### 17.1.2 *Reserved*

#### 17.1.3 *Transportation Management Center (TMC) Improvements*

If required, Transportation Management Center (TMC) Improvements shall be managed by GDOT and implemented by the Transportation Management Center System Integrator (TMC SI, and also referred to as the NaviGator Contractor). The Transportation Management Center Improvements include, but are not limited to, NaviGator System and software modifications, integration services, and other related improvements as necessary to connect, communicate with, and operate GDOT ITS.

The DB Team is responsible for assuring that all software it incorporates for any aspect of the Project is compatible with software used by GDOT as provided in the Technical Provisions. Prior to using any software or version of software not then in use by GDOT, the DB Team must obtain written acceptance from GDOT. In addition, DB Team shall provide to GDOT, at the DB Team's cost, any software, licenses and training necessary to assure that GDOT is able to implement compatible usage of all software utilized by The DB Team. Compatible shall mean that the DB Team-provided electronic file(s) may be loaded or imported and manipulated by GDOT using its software with no modifications, preparation or adjustments. All electronic information submitted to GDOT shall be in native format or, if not available, legible.

The DB Team is responsible for ensuring that the civil infrastructure is in place, in accordance with established milestone dates, and for coordination of work as required to allow for the TMC SI to complete their software development, installation and integration responsibilities with DB Team installed devices.

## 17.2 Design and Construction Requirements

For GDOT ITS, it is DB Team's responsibility to determine the number and specific locations of all ITS components to meet the requirements for the level I of ITS deployment and the latest ITS Design Manual for design requirements unless specified elsewhere in the DB Agreement. The DB Team has flexibility to offer alternatives for GDOT to consider, however the DB Team design shall provide all devices and infrastructure necessary to meet the traffic management needs of the Project. The DB Team shall review suggested location modifications with GDOT during the ITS design workshop, to be conducted after roadway geometry is established and through the preliminary design process.

DB Team shall prepare a preliminary and final GDOT ITS layout including network communication schematic diagrams and specification for review and acceptance by GDOT to ensure adequate planning of the ITS implementation and components' consistency and compatibilities with adjacent GDOT Projects. The plan at a minimum shall provide horizontal and vertical plan location, proposed equipment, proposed structures, and types of materials for the entire ITS. The DB Team shall follow the current version of the GDOT Navigator ITS Design Manual for its ITS design.

The DB Team shall conduct all work necessary to design, procure, furnish, install, integrate (as defined in this section and associated specifications), and maintain GDOT ITS on the Project, including but not limited to, gantries, electrical power, fiber-optic communications, ITS cabinets, maintenance access, junction boxes, and conduits, all in accordance with GDOT standards and specifications and Special Provisions contained herein. Each ITS device, regardless of its purpose, provided by the DB Team shall support, at a minimum, National Transportation Communications for ITS Protocol (NTCIP)-compliant interface protocols so that integration of each device/controller with NaviGator is more efficiently supported.

It is the DB Team's responsibility to survey and locate the existing GDOT and SRTA ITS equipment including, but not limited to, all fiber trunk lines, conduit and duct banks, communication hubs, drop fiber and electrical lines, as well as ITS devices. The DB Team shall perform preventative maintenance, respond to problem notifications from GDOT, make any needed repairs or upgrades as necessary, and repair ITS devices or communications damaged by any party during construction.

For each GDOT ITS system, the DB Team is allowed eight (8) hours GDOT ITS downtime to cutover the new GDOT ITS. The DB Team shall notify GDOT no less than two (2) Business Days before proceeding with any GDOT ITS Work. Any downtime outside of the 24 hours may result in Liquidated Damages as shown in Exhibit 18.

If the Project impacts a Continuous Count Station (CCS) that collects traffic data for GDOT, The DB Team shall notify GDOT at 404-347-0701 two weeks prior to beginning of construction activities. GDOT will coordinate with the owner of the count station equipment, who will be responsible for salvaging for future use.

## **17.2.1 Closed Circuit Television (CCTV) Subsystem**

### **17.2.1.1 CCTV General Requirements**

- CCTV type H shall be furnished, installed, integrated, and tested in accordance with GDOT Standard Specifications:
  - Section 682 – Electrical Wire, Cable, and Conduit;
  - Section 935 – Fiber Optic System;
  - Section 936 – Closed Circuit Television (CCTV);
  - Section 939 – Communication and Electrical Equipment;
  - Section 940 – NaviGator Advanced Transportation Management System Integration

### **17.2.1.2 CCTV Applications**

GDOT ITS CCTV cameras are used to monitor real-time traffic conditions along the roadway and provide real-time information to support:

- Incident verification and management;
- Highway Emergency Response Operator (HERO) dispatching;
- Traffic surveillance and traffic control, including any traffic signals, ramp meters management.

Additionally, dedicated GDOT ITS CCTV cameras are used to monitor GDOT general purpose CMS, i.e. to verify overhead CMS messages and to monitor CMS LED performance to support maintenance management.

### **17.2.1.3 CCTV Design Requirements**

Poles with CCTV cameras shall be placed at all interchanges within the Project limits. Place the CCTV sites in the quadrant of interchange that provides the best freeway views and the best possible arterial views. If a single camera does not have a clear view of all entrance and exit ramps, then separate CCTV cameras shall be placed for optimal coverage.

Locate CCTV sites between interchanges after you have placed Detection Systems. The goal of CCTV camera placement is to achieve 100% coverage of the roadway with some overlap in coverage areas of adjacent cameras. If complete coverage cannot be achieved by using proposed detection poles, then additional poles shall be added exclusively for the CCTV cameras. CCTV coverage shall not be sacrificed to co-locate CCTV and detection on the same poles. CCTVs shall not be located on sign structures.

The CCTV cameras currently used by the Department have a straight line, maximum zoom viewing range of about 2/3 mile. Spacing between CCTV cameras is a maximum of 1 mile.

A CCTV camera on a curve shall be on the outside of the curve to maximize viewing distance in each direction.

A CCTV camera view shall not be obstructed by bridges, overhead sign structures, tunnels, vegetation, vertical curves, etc. The design shall pay particular attention to the camera view in sag vertical curves because dome cameras can only pan vertically approximately 2% above the horizon.

The face of each CMS shall be readable using a CCTV camera. The CCTV camera shall be placed 600 to 1600 feet from the face of the CMS structure.

Visit each CCTV site in the field to confirm and finalize camera locations.

CCTV cameras shall be designed to be digital IP cameras with digital video streaming capability. The camera shall be designed with on-board H.264 encoding in the camera housing to generate the digital video stream. The camera cables shall include Ethernet cable for digital video stream.

Early in the preliminary design schedule, the DB Team shall submit for GDOT review the respective evidences that the CCTV design provides overlapping, continuous coverage between adjacent cameras of the General Purpose Lanes, interchange ramps, and ramp intersections with each side street. The evidence may be a 3-dimensional (3D) view of the General Purpose Lanes as viewed from the DB Team's proposed camera mounting heights above the roadway. The 3D views shall cover the entire Project limits and include all possible sight obstructions, including, but not limited to vegetation, existing signs, proposed signs, relocated signs, bridges and overpasses, and vertical and horizontal alignments.

CCTV poles shall be of sufficient height to mount all GDOT cameras at nominally fifty (50) feet above the roadway surface. CCTV cameras, detection units may be mounted on the same poles. The joint use poles shall be designed to meet the CCTV camera's mounting height of fifty (50) feet above the roadway. Cameras shall not be mounted in excess of fifty-four (54) feet above the base of the pole or the area where a bucket truck can park for maintenance of the camera. At no times shall the distance between the bucket truck parking location and the camera require a bucket truck arm length of greater than seventy (70) feet. If CCTV cameras are connected to overhead sign trusses, the maximum fifteen (15) foot tubular extension shall be connected to the sign structure upright and not to any truss portion of the structure. Tubular extensions shall meet the minimum vibration requirements described herein.

Any pole or upright with a CCTV camera mounted to it shall be designed to be rigid with minimum vibration due to wind. Total deflection at the CCTV mounting height shall meet the requirements set for strain poles for ATMS applications per GDOT Specs Section 639. The DB Team shall include deflection design calculations in the required structure design Submittals.

#### **17.2.1.4 CCTV Detailed Technical Requirements / Specifications**

GDOT CCTV technical requirements including Submittals, materials, construction and testing are described in GDOT Standard Specifications Section 936 – Closed Circuit Television (CCTV). CCTV integration is described in GDOT Standard Specifications Section 940 – NaviGator Advanced Transportation Management System Integration.

All GDOT CCTV cameras shall be pan-tilt-zoom dome cameras meeting requirements described in GDOT Standard Specifications Section 936– Closed Circuit Television (CCTV).

#### **17.2.1.5 CCTV Implementation Requirements**

For CCTV subsystems that are replacements for removed/relocated CCTV, the DB Team shall furnish, install, integrate, test, and make available for GDOT's use prior to deactivation and removal of the existing CCTV. All replacement CCTV equipment shall be new. No relocation of existing equipment is permitted as a part of this Project. Replaced and removed devices shall be provided to GDOT.

DB Team shall coordinate return of salvageable equipment with GDOT State ITS Engineer at (404) 635-2849.

All salvaged equipment should be placed on pallets, containing a list of materials with the description of each item, their condition, and equipment serial numbers. DB Team shall deliver salvaged equipment to the Traffic Signal Electrical Facility (TSEF), attention State ITS Engineer, located at 935 East Confederate Avenue, SE, Atlanta, GA 30316-2531.

Camera system assemblies shall be installed on new concrete strain poles unless installed on existing or other sign structures.

The DB Team shall include milestones for replacement CCTV and new traffic monitoring CCTV installation in the Critical Path Method (CPM) Schedule.

The DB Team shall prepare and implement a CCTV integration plan for GDOT's approval. The integration plan shall meet the requirements of GDOT Standard Specifications Section 940 - NaviGator Advanced Transportation Management System Integration.

Regardless of the line of sight verification during design, the DB Team shall be responsible for constructing GDOT CCTV camera system meeting the coverage requirements. If after completion of all CCTV, roadway and Managed Lane lanes and structures, signs, CMS, etc., GDOT discovers any roadway segment not meeting the coverage requirements, the DB Team shall modify the CCTV placement as necessary to meet the coverage requirements. The modification could include, but not limited to, raising or lowering camera mounting heights, additional CCTV installations, or other solutions presented by the DB Team and approved by GDOT. No additional payment will be made to the DB Team for meeting the CCTV coverage requirements.

In addition, the DB Team shall install new CCTV equipment on the existing poles at mile post 126.2 left and mile post 129.5 right.

### **17.2.2 Detection Requirements**

Utilize proposed CCTV pole locations when installing detection devices. The detection devices shall be spaced between 1760-3000 feet and provide volume, occupancy, and speed for all ramps and mainline general purpose lanes.

VDS cameras on ramps shall be oriented towards free-flowing traffic segments of a ramp. For an exit ramp, the VDS camera coverage area shall be as close to the gore as possible and not less than 400 feet from the stop bar at the end of the ramp. For an entrance ramp, the VDS camera coverage area shall be no less than 300 from the “top,” or arterial intersection, of the ramp, and no less than 400 feet from the gore.

MDS shall only be used in situations where the device can be placed perpendicular to the mainline roadway. This ensures that the MDS can be properly calibrated and provide accurate data as required for incident management. Existing MDS for ramp detection may be retained.

No more than 4 VDS cameras and one CCTV camera shall be placed on a single pole.

Detection devices shall be placed off the right shoulder of the highway. VDS cameras shall not be placed to detect travel lanes across the median/barrier wall (i.e., in the opposite direction of travel), because shadowing by the median wall, its shadow, tall vehicles, and parallax distortion will degrade the quality of detection.

MDS may be used to detect travel lanes across a median/barrier wall and may be used for bi directional detection. MDS units are commonly mounted in side-fire mode. The mounting height of the unit shall be 17 feet above the roadway and is generally offset 20 feet from the first lane being detected.

### **17.2.3 Changeable Message Sign (CMS) Subsystems**

#### **17.2.3.1 General CMS Requirements**

All CMS design shall meet the following requirements:

- CMS shall be designed in accordance with the latest GDOT ITS Design Manual;
- CMS shall be furnished, installed, integrated, and tested in accordance with GDOT Standard Specifications Section 631 – Permanent Changeable Message Signs and,
  - Section 682 – Electrical Wire, Cable, and Conduit;
  - Section 797 – Hub Building;
  - Section 939 – Communication and Electronic Equipment;

- Section 940 – NaviGator Advanced Transportation Management System Integration

### **17.2.3.2 CMS Applications**

The Project includes CMS applications, as described below:

- Overhead CMS are used to provide travelers with information on travel times, traffic incidents, road conditions, weather conditions, and vehicle alerts such as Amber Alerts. Three (3) CMS will be installed by the DB Team. The CMS shall be 3 feet by 15 feet 20 mm full matrix front access on a Type III structural support. Approximate locations will be as stated in Table 17-1 and final locations will be coordinated and finalized with GDOT TMC during the design phase. CMS signs will be controlled from the GDOT TMC.

**Table 17-1: CMS Sign Locations**

| <b>CMS</b>    | <b>Location</b>                               |
|---------------|---|
| <b>CMS #1</b> | <b>NB between Hamilton Mill Rd and SR 211</b> |
| <b>CMS #2</b> | <b>NB between SR 211 and SR 53</b>            |
| <b>CMS #3</b> | <b>SB between SR 53 and SR 211</b>            |

### **17.2.3.3 CMS Design Requirements**

General: All CMS shall be full-color, full matrix LED displays. All CMS, along with associated controllers and software, shall be capable of displaying both text and Manual of Uniform Traffic Control Devices (MUTCD), GDOT approved graphical images and shapes. Full-color CMS shall display, at a minimum, the colors prescribed in the MUTCD, section 1A.12. CMS that are required to show graphics or display 12” or smaller font sizes shall have a pixel pitch of 20 mm. The CMS locations shall conform to sign spacing specifications in the MUTCD.

Each CMS will require a new structure to be designed and constructed by the DB Team.

### **17.2.3.4 CMS Technical Requirements / Specifications**

GDOT CMS technical requirements are described in GDOT Standard Specifications 631– Permanent Changeable Message Signs.

### **17.2.3.5 CMS Implementation Requirements**

For CMS that are replacements for removed existing CMS, the DB Team shall furnish, install, integrate, test, and turn it over to the Department's use prior to deactivation and removal of the existing CMS. All replacement CMS equipment shall be new. No relocation of existing equipment is permitted as a part of this Project. The DB Team shall coordinate return of salvageable equipment with GDOT ITS Engineer at (404) 635-2849.

All salvaged equipment should be placed on pallets, containing a list of materials with the description of each item, their condition, and equipment serial numbers. DB Team shall deliver salvaged equipment to the Traffic Signal Electrical Facility (TSEF), attention State ITS Engineer, located at 935 East Confederate Avenue, SE, Atlanta, GA 30316-2531.

The DB Team shall prepare and implement a GDOT CMS integration plan for GDOT's approval. The integration plan shall meet the requirements of GDOT Standard Specifications Section 940 – NaviGator Advanced Transportation Management System Integration.

The DB Team shall prepare and implement a CMS testing plan for GDOT's approval. The testing plan shall meet the requirements of GDOT Standard Specifications Section 631 – Permanent Changeable Message Signs.

#### **17.2.4 Communications Network**

The DB Team shall design, furnish, install, integrate and test a communication network for the GDOT ITS between Hamilton Mill Rd and the proposed hub building EE. In addition, the communication network shall be installed to STA 964+50 in Exhibit 2 of the DBA. The communication network north of SR 53 shall be terminated in a pull box. A crossover connection at the terminating box shall be installed to tie the two FO trunk cables, thus enabling device communications to be rerouted in the event that one of the FO trunk cables is cut.

The table below (Table 17-2) lists the existing and proposed hub buildings that may be utilized for this project. DB Team shall construct the proposed hub buildings in the approximate location and building dimensions detailed below. Hub buildings shall meet the requirements of GDOT Special Provision 797 – Hub Buildings and the project specifications.

**Table 17-2: Hub Building Locations**

| HUB | Owner/Occupant | Dimension     | Location                                | Status         |
|-----|----------------|---------------|---|----------------|
| DD  | GDOT/SRTA      | 12 ft x 16 ft | I-85 at Hamilton Mill Rd<br>SW quadrant | 110600 Project |
| EE  | GDOT           | 12 ft x 16 ft | I-85 at SR 53                           | Proposed       |

##### **17.2.4.1 Communication / Network General Requirements**

The DB Team shall design, furnish, install, integrate and test the fiber-optic backbone and laterals for the ITS. The backbone shall be single-mode fiber optic cable for the GDOT networks. The long haul and distribution networks shall be Internet Protocol (IP) over Ethernet. Communication drops to local GDOT ITS cabinets shall also be single-mode fiber optic cable and IP over Ethernet. Communication between the ITS cabinets and the local devices attached to the cabinet shall be designed, furnished and installed by the DB Team based on the requirements of the device or devices.

The communication and network layout focuses on the existing and proposed Communication Hub buildings that will aggregate distribution layer Ethernet network for transmission to the GDOT.

The DB Team shall verify that all existing ducts anticipated to be used by the DB Team are open, with no blockages, water or breaks. Damaged conduits shall be replaced or new duct banks installed around the blockage at no additional cost to GDOT or SRTA.

The DB Team shall not install a duct bank under any paved surface except when crossing ramps or other Travel Lanes. New conduit duct banks shall be installed approximately ten (10) feet inside the existing or proposed Interstate Right-of-Way where feasible. Where vegetation or other obstructions hinder installation of the duct banks approximately ten (10) feet from the Right-of-Way line, the DB Team may modify the duct banks location for GDOT review and approval.

#### **17.2.4.2 Communication Network Design Requirements**

The communication infrastructure and network shall be designed in accordance with the latest GDOT NaviGator ITS Design Manual.

The DB Team shall conduct a communication network design kick-off meeting with GDOT prior to beginning design efforts. The DB Team shall utilize the kick-off meeting to confirm GDOT communication network requirements.

When conduit or duct banks are installed under roadways or shoulders for lateral crossings, the conduit and duct banks shall be installed by directional boring as shown in GDOT ITS detail drawings.

GDOT ITS shall be served by a physically and logically separate communication networks. All conduit, conduit access (such as Electrical Communication Boxes (ECBs) and pull boxes), fiber and communication cabling, cabinets, patch panels, network switches and terminal servers shall be solely dedicated to the GDOT. Dedicated conduit shall be within the same conduit duct bank. Every conduit in each duct bank shall have a unique color and/or striping pattern. The coloring shall be consistent through the Project corridor. No fiber optic, other data communication, or composite cable shall be installed in the same conduit as an electrical power service cable.

The Communication network for the GDOT ITS shall be designed to be end-to-end: from the field device to the NaviGator TMC including the ITS cabinets and existing Communication Hub Buildings.

Design considerations shall include cabinet dimensions, communication shelf slots, network bandwidth capacity, conduit capacity, backbone fiber availability, and electrical circuit capacity.

The fiber-optic backbone shall be designed along the General Purpose lanes. All GDOT ITS data shall be aggregated to 1 GB backbone network at designated communication hub buildings at locations in Table in Section 17.2.4, and within existing Communication Hub buildings.

All fibers installed under this project shall be terminated at Communication Hubs or termination points as designated for the GDOT. This shall include terminating each fiber to a rack mounted fiber distribution center. Provide patch cords for each connection between fibers at a termination fiber distribution center.

The DB Team shall determine the link loss budget analysis for all fiber-optic links.

The DB Team shall design a backbone communication system with fiber-optic cables installed along the project area. Lateral drop cabling shall be used to reach GDOT Sites.

If GDOT provides ITS details during the design phase, the DB Team will adapt the communication network design to accommodate the GDOT communication network requirements.

General design criteria elements for GDOT ITS networks are as follows:

- Fiber Optic Cable: Fiber optic trunk cables shall be located on both sides of the corridor within the Project limits.

Conduit shall be placed to the back of the Right of Way line or as far away from travel as possible.

Pull Boxes (PBs) are placed no more than 750 feet apart on FO trunk cable sections. Device locations usually dictate the placement of PBs, because a PB is required for a drop cable splice at each device in most cases. Pull boxes are not rated for deliberate traffic and shall only be placed in areas which are not expected to have vehicles routinely present. Electrical Communications Boxes (ECBs) are used when the conduit needs to be placed under the paved shoulder, such as near a bridge approach slab.

- Conduit: Conduit shall be located to the back of the Right of Way line or as far away from travel as possible, where it will be well protected from future excavation. When conduit is installed under the paved or graded shoulders,

boring is required. When conduit is installed outside the shoulder, either open trench installation, boring or plowing may be used. When conduit is installed under the travel lanes or under ramps, boring is required.

When using open trench installation, the conduit duct bank shall be installed such that the top of the duct bank is at a depth of 48" below grade.

When boring under paved shoulders, travel lanes, or ramps, designers compute the appropriate bore diameter needed to accommodate the conduit to be located in the directional bore.

For bridge crossings, the preferred method of crossing is to bore underneath the bridge or stream. If conduit must be attached to the bridge, it is preferred to bore around the approach slab and end wall. The bore shall be terminated in a pull box that is placed in the slope paving. Fiberglass conduits are then run from the pull box up the end wall and then across the bridge according to the detail provided by the Bridge Office. For each ITS project requiring conduit attachment to bridges, designers must send a letter to the GDOT Bridge Office.

Conduit duct bank configuration Type 3 four (4) 2" HDPE ducts shall be installed. PVC conduit shall be used between the trunk pull box and device pull box if the distance between the two is less than 20 feet.

- Pull Boxes and ECBs: The electrical communications boxes (ECBs) and pull boxes (PBs) used on GDOT ITS projects are designed to be large enough to accommodate a splice enclosure and the coil of the specified amount of slack fiber optic cable without violating the manufacturer's specified bending radius of the cable.

A PB shall also be located at each end of a directional bore. Additionally, a PB or ECB is required immediately before and after a bridge or any other situation where there is a conduit transition, for example at a device location or a FO trunk cables junction point.

For freeway installations, a Type 7 PB is required to allow for FO trunk cable maintenance slack, device drops, or reel to reel splices. A Type 4S PB is used at the base of ITS device poles. A drop cable, typically 12 fiber, connects the Type 4S PB back to the Type 7 PB along the FO trunk cable.

An ECB is necessary if a box needs to be installed in the shoulder or other paved area. ECBs shall not be installed in an active travel lane.

- Provide an internet protocol (IP) Ethernet based system with a fully redundant architecture, allowing automatic, self-healing, and cutover of data flow to a secondary path or segment in the case of a primary equipment failure or fiber break. The ITS communication system backbone shall be rated for a Gigabit

- transfer rate, minimum. ITS field switches shall be rated for a 1-gigabit uplink transfer rate, minimum. Downlink ports at the field switches shall be 10/100BaseT;
- Provide Network Switch, Layer 3 Gig-E to connect the local ITS system to the GDOT wide area network (WAN) at the existing and proposed Communication Hub location(s). The Layer 3 network switch shall be designed with adequate 1-gigabit and 10/100BaseT ports to support the network architecture and design;
  - Provide field network switch, Layer 2 10/100BaseT in each ITS cabinet to support connectivity of the ITS devices connected to the cabinet. Each Layer 2 switch will be designed with adequate ports to support communication with all devices connected to the cabinet. A minimum of four (4) spare ports shall be provided;
  - Each field network switch shall provide a primary and secondary fiber path from the field cabinet to the Communication Hub;
  - The fiber layout for GDOT ITS shall provide a daisy-chain. The daisy-chain shall be confirmed with GDOT during the ITS design workshops and preliminary design efforts; The maximum number of Layer 2 field network switches forming a network path between an end device (GDOT ITS) and a Communication Hub based data aggregating Layer 3 network switch shall not exceed eight (8) per fiber pair. The calculated data throughput assigned to any sub-network path shall not exceed one-third of the path's throughput capacity;
  - New devices and existing devices shall not be assigned within the same network path or otherwise daisy-chained to avoid possible inconsistencies in communication protocols;
  - The DB Team shall determine the quantity of fibers required for the backbone communication system and local connectivity. The DB Team shall provide all calculations required to support the design determination. Include capacity for 100 percent (100%) system expansion. The DB Team shall provide 100 percent (100%) spare fibers that shall be continuous along any section of the Project and continuous from end to end of the project. The number of fibers shall be rounded up to the next larger standard fiber cable size, for example, if the calculation determine forty (40) fibers are needed, eighty (80) shall be provided rounded up to ninety-six (96) which is the nearest standard cable size.
  - All drop fiber shall be 12-fiber single mode cables, all the 12-fibers of the drop cable shall be spliced to the Trunk cable;
  - The GDOT ITS also includes new Hub buildings. The new communication Hubs shall be designed to meet all GDOT design guidance and construction specifications and GDOT equipment requirements. The Communication Hub building including but not limited to, the building, foundation, conduit cutouts and entrances, air conditioning systems, fencing, grounding, paving, vertical and overhead cable runways and trays, electrical service, electrical conductors, and electrical pull boxes will be designed to meet all the requirements shown on GDOT ITS Detail ITS-13 Hub Details – Hub except that the dimension of the hub buildings shall be as shown in table above, exterior dimensions and 9'-6" interior building height measured from the finished floor to the finished ceiling.

- The DB Team shall verify that the door of the building can accommodate GDOT's proposed Equipment racks. The hub buildings shall be designed so that the air conditioning units are installed on the roof of the hub building. The layout of the Communication Hub buildings shall be designed for the equipment racks to be installed on the long dimension of the Communication Hub building. The design will ensure that one (1) row of equipment racks can be installed, powered and cabled. The Communication Hub building will be designed to enclose an equipment rack, electrical and fiber cable management, and a service technician work table and two (2) chairs. The Communication Hub building shall be designed to include lightning protection, grounding to 5 ohms or less and surge suppression. The Hub building shall be enclosed by fencing which meets the requirements of ITS Design Manual and GDOT Standard Specifications. The DB Team shall coordinate the design of the Communication Hub building with approval by GDOT;
- DB Team shall ensure new Communication Hub buildings are able to utilize a mobile emergency generator during power outages. Route the main power to a manual transfer switch located with the mobile emergency generator connection installed on the outside of the shelter. The emergency generator connection shall allow GDOT personnel to power the site from a portable generator in the event that the commercial power is lost. Route the resulting main power to a 42-circuit distribution panel and through the associated AC surge protective devices. Section 17.2.5 provides requirements to allow mobile generator to power Hub buildings.

#### **17.2.4.3 Communication Network Implementation Requirements**

The communication network shall be furnished, installed, integrated and tested in accordance with the GDOT Standard Specifications and Special Provisions.

All fiber optics used in this Project shall be outside plant (OSP) single-mode fiber. The DB Team shall provide fiber-optic cables for trunk lines and drop lines, fiber distribution centers, patch panels, splice enclosures, and fiber-optic cable splices as required to connect each ITS equipment cabinet, each Communication Hub Building, and ITS elements to the backbone communication system.

Either field terminated or pre-terminated drop cable assemblies shall be used for all drop fibers from the fiber optic trunk line to the ITS cabinet or device.

Underground splice enclosures shall be furnished and installed at all trunk line splices and at all locations where drop fibers are installed.

Rack mounted fiber distribution centers (FDC) shall be furnished and installed in all field cabinets and hub buildings.

The DB Team shall furnish and install all equipment, cabinets, cabling, and electronic devices needed to connect the backbone fiber to the Layer 2 and Layer 3 Ethernet

switches and to connect all GDOT ITS devices to the Layer 2 switch in the local ITS cabinet.

### **17.2.5 ITS Electrical Service (Power) Requirements**

#### **17.2.5.1 ITS Electrical General Requirements**

The DB Team shall coordinate with the electrical power companies and provide electrical power for all ITS included in the project. The DB Team shall pay all costs for providing electrical power service. In addition, the DB Team shall pay all electric service recurring costs for the ITS until Substantial Completion.

#### **17.2.5.2 Electrical Design Requirements**

##### **17.2.5.2.1 General Electrical Design Requirements**

The DB Team shall ensure electrical power is designed based on the electrical service loads at each location where power is required. Electrical service, wire sizes, transformers, surge suppression, meters, grounding, lightning protection and uninterruptable power supply (UPS) are all considered part of the electrical power systems.

At locations where electrical power service is provided to GDOT, the DB Team shall ensure that the electrical power company installs an electrical usage meters for GDOT equipment.

The DB Team shall design electrical loads for all ITS cabinets, Hub Buildings, and GDOT ITS Devices.

The DB Team shall provide electrical power calculations to GDOT for review and approval during the design. Power calculations shall include power loading, transformers, and conductor sizes based on National Electrical Code (NEC) standards. In no case shall electrical service provided at a location be less than 120 volt, 20 amps AC. Electrical load at each ITS shall be based on a factor of two (2) times the calculated load based on the equipment being provided for that cabinet to allow for future expansion and use of maintenance tools.

In addition to other requirements referenced herein, electric pull boxes shall be spaced not more than five-hundred (500) feet apart. No fiber optic or other data communication or composite cable shall be installed in the same conduit as an electrical power service cable.

The DB Team shall install mechanical theft deterrent devices in all Project electrical conduits and electrical pull boxes to prevent the removal of electrical wiring and to prevent unauthorized access. The theft deterrent devices typically consist of a rubber stopper mechanical device that compress against the electrical wiring and prevents the wires from being easily pulled through the conduits. DB Team shall also install

electrical pull box lids that contain locking mechanisms that works with the use of cams to prevent unauthorized access.

Voltage design drop calculations shall comply with the suggested limits defined in NEC Article 210.19 (A) (1) Informational Note #4 and NEC Article 215.2 (A)(1)(b) Informational Note #2. These calculations shall define all service points, circuits emanating from those points, details of all loads on all circuits, the nominal voltage on each circuit, the voltage drop for each link of each circuit, the percent voltage drop for each circuit and the wire size selected for each link of each circuit. These calculations shall include sizing and ratings of all circuit breakers, transformers, fused switches and transfer switches planned for installation. These calculations shall be submitted with the preliminary and final design Submittal and with each subsequent Submittal with all data appropriately updated. An allowance of 9.0 Amps shall be included at the end of the circuit for a convenience outlet. Where Transformers are used, they shall be provided with  $\pm 2.5\%$  and  $\pm 5\%$  voltage taps. These taps shall not be used to fulfill the voltage drop and wire size requirements of these minimum technical requirements.

Where circuits run both north and south from a power service point, separate circuits, each with its individual circuit breaker, shall be provided. A main disconnect circuit breaker shall be provided at each power service point.

#### **17.2.5.2.2 Lightning Protection Design Requirements**

All CCTV, CMS, GPLS, and MDS poles (including sign structures with ITS) shall be designed to include lightning protection systems per the requirements of Attachment 17-1 Surge Protection and as described herein. The top of the lightning rod shall be at least two (2) feet above the highest point or top of any and all ITS devices attached near the top of the pole shall be mounted within a sixty (60) degree cone of protection measured from the top of the lightning rod, which ever provides more protection for the ITS device.

Each ITS cabinet, ITS pole and Hub building shall have an exterior earth-ground ring consisting of a system of ground rods connected to a ring of a #2 AWG, stranded bare copper ground wire. For ITS Cabinets and ITS Poles, the earth ring shall consist of a minimum of two ground rods. Ground rods shall be placed at least forty (40) feet from adjacent ground rods. When ground rods adjacent installations are within one hundred (100) feet of each other, the rings shall be connected with #2 AWG stranded bare copper ground wire. Each site shall include lightning protection which shall also be connected to the site's earth-ground ring. The ground system shall be measured and documented with a resistance of five (5) ohms or less.

When new GDOT ITS devices are placed on an existing structure, the structure's lightning protection system shall be updated by the DB Team to the lightning protection requirements for new structures.

#### **17.2.5.2.3 Grounding Design Requirements**

In order to facilitate testing and periodic retesting of the grounding array at each ITS pole, ITS cabinet and Hub Building, etc., the DB Team shall design the grounding system so that the top of all grounding rods is installed in an Electrical Service Type 2 Pull Box. The grounding conductor shall be designed to be exothermically connected to the ground rod at an elevation of twelve (12) inches below ground line. All ITS equipment and enclosures located at a Communication Hub site shall conform to the latest adopted NEC for bonding and grounding. Grounding arrays shall be designed to be interconnected for cabinets, poles, lightning systems, etc., that are within forty (40) feet of each other. The actual locations of buried connections and ground rods should be accurately shown in the as-built Plans.

When new GDOT devices are placed on an existing structure, the grounding system shall be updated by the DB Team to current specifications.

Grounding shall meet the minimum requirements of NEC.

#### **17.2.5.2.4 Uninterruptable Power Supply (UPS) Design**

##### **Requirements**

For GDOT ITS locations, the DB Team shall design Uninterruptable Power Supply (UPS) to meet the requirements in GDOT ITS Design Manual, GDOT Standard Specifications Section 939 and the following:

- UPS shall be designed for all new Hub Buildings to support GDOT equipment;
- The DB Team shall designate space within the Hub Buildings for the installation of the GDOT UPS.

#### **17.2.5.3 Electrical Implementation Requirements**

The DB Team shall furnish, install and test the electrical systems as required to meet the power and UPS demand of each Communication Hub location and GDOT ITS Cabinet Location. The DB Team shall furnish and install and test the electrical services as required by GDOT Specification, the approved Plans, and herein.

At locations (except Hub Buildings) where electrical power service is provided to GDOT ITS cabinets and devices, the DB Team shall ensure that the electrical power company installs one (1) electrical usage meter for GDOT equipment. At each new Hub Building, the DB Team shall ensure that the electrical power company installs one (1) electrical usage meter for the Hub Building.

The DB Team shall ensure all voltage being provided to the cabinet is in accordance with the DB Team's approved electrical design calculations. The DB Team shall test the power from the electrical service disconnect, to the transformer, to the meter(s) and into the cabinets.

For GDOT ITS, the DB Team shall furnish and install all components of the electrical power systems to ensure complete and functioning systems, from equipment cabinets to and including devices. The electrical systems shall be furnished and installed to

include all required device power supplies, grounding, lightning protection and surge suppression. Surge suppression shall be furnished and installed on both ends of any underground electrical cable or composite cable carrying electrical power to an device to protect against surges induced from a lightning strike on the ground.

Electrical service shall be installed and ready for connection before ITS cabinets and CMS are installed. Electrical services shall be connected and activated for all ITS cabinets, Communication Hub Buildings, and CMS within twenty-four (24) hours of installation of the cabinet or CMS.

#### **17.2.5.4 Provision for Temporary Generators for Hub Buildings**

**Generator and Auxiliary Power Connection:** The DB Team shall furnish new Hub Buildings that have provisions for the connection of an external power source, such as a portable generator, through a weatherproof, water-resistant, secure interface to back up both GDOT electrical services. This feature should allow authorized personnel to access, connect, and secure an external power source to the Hub buildings in order to restore power within five (5) minutes of arrival time at the Hub buildings. The DB Team shall provide each Hub Building a manual transfer switch rated equal to or higher than the design load of the Hub's main breaker and the generator input twist-lock connector rating. Ensure that the transfer switch provides a means of switching between normal utility power and auxiliary backup generator power. Ensure that the switching time between sources is no longer than 250 milliseconds. Ensure that the transfer switch meets UL 1008. Ensure that the transfer switch does not allow simultaneous active power from more than one source and does not allow generator backflow into normal utility AC circuits.

**Manual Transfer Switch:** Ensure the manual transfer switch is a two-position switch. Label the switch positions as "Generator Power" and "Utility Power". Equip the transfer switch with a "Utility-On" indicator, which will illuminate when normal utility power service is available and the switch is in the "Generator Power" position. The indicator must turn off when the transfer switch is moved to the "Utility Power" position.

**Generator Access Panel:** Include a generator connection panel inside the Hub Buildings, next to the main electrical services panels. The generator connection panel shall consist of, at a minimum, a manual transfer switch. A generator hook up with a four-prong, 30-amp twist-lock connector with recessed male contacts shall be installed on the outside wall, minimum two (2) feet off the ground, of each Hub Building. The generator hook up shall be enclosed in a weatherproof and dustproof enclosure. The enclosure shall have a lockable exterior door. Ensure that this access door is labeled as "Generator Access Door", equipped with a tamper-resistant hinge. The access door shall be provided with a #2 lock unless otherwise specified in the Plans. The access door must include a weatherproof opening for the generator cable. The generator hookup compartment shall allow closing and locking of the access door when the generator cable is connected.

Connect wiring from the main electrical service panel to the transfer switch. Connect the alternate power source's wiring on the transfer switch to a receptacle that can accept a 240 VAC generator cord. Install a power service wire between the transfer switch and the existing power distribution panel inside the Hub.

### **17.3 Testing and Acceptance**

The DB Team shall submit test plans to GDOT for review and acceptance.

DB Team testing of specific ITS technologies, electrical components, communication network and infrastructure, Communication Hubs and equipment cabinets shall follow the test requirements in the following related sections in the GDOT Standard Specifications/Special Provisions:

- Section 631 – Permanent Changeable Message Signs;
- Section 682 – Electrical Wire, Cable, and Conduit (Multi-cell and Continuous Flexible Conduit System);
- Section 797 – Hub Building;
- Section 935 – Fiber Optic Cable;
- Section 936 – Closed Circuit Television (CCTV);
- Section 937 – Detection System;
- Section 939 – Communication and Electrical Equipment;
- Section 940 – NaviGator Advanced Transportation Management System Integration

GDOT ITS, Communication Hub and Communication Network testing and final acceptance processes are to be conducted according to the applicable GDOT Standard Specifications, Special Provisions and as described herein.

### **17.4 Warranty**

The DB Team shall provide all warranties as set forth in the Agreement and specified in the Standard Specifications, Special Provisions and contained herein. In the event of conflicting warranty periods between the above, the longest warranty period identified shall be provided by the DB Team. All warranties shall commence upon Final Acceptance. Any additional costs incurred by the DB Team to meet the warranty requirements shall be the sole responsibility of the DB Team.

#### **17.4.1 Protection of Existing ITS Signalization**

The DB Team shall ensure the existing GDOT ITS and existing Toll System (if exists) are protected from damage. Damage caused by the DB Team to GDOT ITS, due to failure to locate any existing or installed GDOT ITS within the Project limits, shall be the responsibility of the DB Team to repair and at no cost to the Department.

If necessary, any disruption to the existing GDOT ITS and existing Toll System shall be planned and coordinated with GDOT and SRTA, respectively, no less than two (2) Business Days before proceeding with the Work.

#### **17.4.1.1 Existing System Inventory**

The DB Team shall conduct the field survey and provide a complete inventory of all ITS components and infrastructure in the Project limits within thirty (30) calendar Days of NTP 1. The inventory shall include components and infrastructure to be removed and replaced, to be removed and relocated and to be left in place.

#### **17.4.1.2 ITS Locates**

The DB Team shall be required to locate the electrical and fiber optic conduits and cables within the construction limits. The DB Team shall obtain available ITS as-built and location information from GDOT and SRTA upon NTP 3 and shall be fully responsible for locating all existing, temporary and new ITS infrastructure and facilities until Final Acceptance. The DB Team shall be responsible for providing ITS locates requested by other consultants, contractors and/or utility companies within forty-eight (48) hours of receiving requests from GDOT or SRTA or from any other source from NTP 3 to Final Acceptance. The DB Team shall notify GDOT or SRTA of the date and location of each locate request and the date at which the locate was completed.

The DB Team shall fully cooperate with all Utility Owners during the design, survey and construction activities of the Project. The DB Team shall call Georgia 811 a minimum of forty-eight (48) hours and a maximum of ninety-six (96) hours before any excavation work.

#### **17.4.1.3 ITS Preventative Maintenance**

GDOT and SRTA (and their respective maintenance contractors) will continue to provide routine and on-call maintenance for all ITS, Toll System equipment within the project area during the Contract period. The DB Team shall cooperate with GDOT and SRTA by accommodating access to the site for GDOT or SRTA's maintenance contractor to perform routine or on-call maintenance.

#### **17.4.1.4 ITS Repair and Replacement**

Throughout the construction period until the Final Acceptance of the project, the DB Team shall notify GDOT and SRTA of any damage to the existing ITS field element or infrastructure that is caused by the DB Team, either due to the negligence or direct action of the DB Team as soon as possible. GDOT or SRTA (or their respective maintenance contractors) will repair or replace the damaged ITS field element or infrastructure. The DB Team shall be responsible for the total repair or replacement cost along with all fines per Volume 1, Exhibit 18.

If an existing ITS element or infrastructure needs to be taken out of service due to construction related relocation or interruption or as required by the project specifications, the DB Team shall provide GDOT or SRTA (depend on the ownership) a written notice seventy-two (72) hours in advance before taking control of the device(s). Any impacted devices shall be replaced with an equivalent in new condition or per the project specifications. All replacement devices are subject to the testing and acceptance requirements specified in the project specifications.

## 18 TRAFFIC CONTROL

### 18.1 General Requirements

*No additional requirements*

### 18.2 Administrative Requirements

#### 18.2.1 Transportation Management Plan

*Supplement the following to Section 18.2.1 of Volume 3*

A detailed plan for all project detours, including but not limited to a narrative of all detour activities, detour schedules and timelines, and detour maps, shall be developed by the DB Team and included within the Transportation Management Plan (TMP). The DB Team shall include descriptions of their approach for communicating this information to the traveling public.

### 18.3 Design Requirements

#### 18.3.1 Traffic Control Plans

*Supplement the following to Section 18.3.1 of Volume 3*

The DB Team shall provide a minimum of eight (8) portable changeable message signs (PCMS) per Project site. Six (6) PCMS shall be located on I-85. Two (2) PCMS shall be located on overpass road detour routes.

##### 18.3.1.1 Roadway Guidelines

Express Lanes cannot be used as a general purpose lane where the restrictions refer to 2 or 3 lanes open to traffic.

##### 18.3.1.1.1 Design Parameters for Traffic Control

*No additional requirements*

##### 18.3.1.1.2 Allowable Shoulder/Lane/Roadway Closures and Traffic Stage Changes

*Supplement Lane and Shoulder Closure During Design-Build Period Section of Volume 3 with the following:*

Closure of the Managed Lane shall be considered a Single Lane Closure.

Closure of a general purpose lane or auxiliary lane at any time shall be considered a Single Lane Closure.

1. I-85 SB and ramps between Hamilton Mill Road and I-985 (applies when three (3) or more lanes are open to traffic)
  - A. Single Lane Closure:
    - i. Single lane closures are allowed daily between the hours of 8:00 pm to 5:00 am, Sunday through Thursday.
    - ii. Single lane closures are allowed between the hours of 9:00 pm Friday to 7:00 am Saturday.
    - iii. Single lane closures are allowed between the hours of 9:00 pm Saturday to 9:00 am Sunday.
  - B. Double Lane Closures (can occur when 3 lanes are open to traffic):
    - i. Double lane closures are allowed daily between the hours of 10:00 pm to 5:00 am, Sunday through Thursday.
    - ii. Double lane closures are allowed between the hours of 10:00 pm Friday to 6:00 am Saturday.
    - iii. Double lane closures are allowed between the hours of 10:00 pm Saturday to 7:00 am Sunday.
2. I-85 SB and ramps between Hamilton Mill Road and I-985 (Current configuration of two (2) lanes)
  - A. Single Lane Closure
    - i. Single lane closures are allowed daily between the hours of 9:00 pm to 5:00 am, Sunday through Thursday.
    - ii. Single lane closures are allowed between the hours of 9:00 pm Friday to 7:00 am Saturday.
    - iii. Single lane closures are allowed between the hours of 9:00 pm Saturday to 9:00 am Sunday.
  - B. Double Lane Closures are not allowed at any time.
3. I-85 NB and ramps between I-985 to Hamilton Mill Road (applies when three (3) or more lanes are open to traffic):
  - A. Single Lane Closure (closure of the Express lane or an auxiliary lane is considered a single lane closure):
    - i. Single lane closures are allowed daily between the hours of 9:00 pm to 5:00 am, Sunday through Thursday.
    - ii. Single lane closures are allowed between the hours of 9:00 pm Friday to 7:00 am Saturday.
    - iii. Single lane closures are allowed between the hours of 9:00 pm Saturday to 9:00 am Sunday.
  - B. Double Lane Closures:

- i. Double lane closures are allowed daily between the hours of 10:00 pm to 5:00 am, Sunday through Thursday.
  - ii. Double lane closures are allowed between the hours of 10:00 pm Friday to 6:00 am Saturday.
  - iii. Double lane closures are allowed between the hours of 10:00 pm Saturday to 7:00 am Sunday.
- 4. I-85 NB and ramps between SR 20 to Hamilton Mill Road (Current configuration of two (2) lanes)
  - A. Single Lane Closure
    - i. Single lane closures are allowed daily between the hours of 9:00 pm to 5:00 am, Sunday through Thursday.
    - ii. Single lane closures are allowed between the hours of 9:00 pm Friday to 7:00 am Saturday.
    - iii. Single lane closures are allowed between the hours of 9:00 pm Saturday to 9:00 am Sunday.
  - B. Double Lane Closures are not allowed at any time.
- 5. I-85 and ramps between Hamilton Mill Road and SR 53 (Current configuration of two (2) lanes)
  - A. Single Lane Closure
    - i. Single lane closures are allowed daily between the hours of 9:00 pm to 5:00 am, Sunday through Thursday.
    - ii. Single lane closures are allowed between the hours of 9:00 pm Friday to 7:00 am Saturday.
    - iii. Single lane closures are allowed between the hours of 9:00 pm Saturday to 9:00 am Sunday.
  - B. Double Lane Closures are not allowed at any time.
- 6. Overpass Roadways
  - A. Single Lane Closure:
    - i. Single lane closures are allowed daily between the hours of 8:00 pm to 5:00am, Sunday through Thursday.
    - ii. Single lane closures are allowed between the hours of 8:00 pm Friday to 7:00am Saturday.
    - iii. Single lane closures are allowed between the hours of 8:00 pm Saturday to 9:00am Sunday.
    - iv. Mill Creek High School, Frank N. Osbourne Middle School, and Duncan Creek Elementary School Major Events or Games:

No lane closures will be allowed that affects traffic a minimum of 2 hours before and 2 hours after a Major Events or Games. It is the responsibility of the DB Team to verify the schedule and plan The Work accordingly.

#### B. Detours

The DB Team shall observe the following project specific restrictions:

- i. The DB Team will be allowed to close an overpass roadway for one hundred and eighty (180) days maximum per overpass site.
- ii. These bridges shall not be closed at the same time:  
  
Spouts Spring Road and Flowery Branch Road
- iii. These bridges shall not be closed during Mill Creek High School football season in Gwinnett County:  
  
Spouts Spring Road and Flowery Branch Road
- iv. Two portable temporary signals shall be placed by the DB Team during the detour of the Spouts Spring Overpass and the Flowery Branch Overpass. One portable temporary signal shall be installed at the intersection of Spouts Spring Road and Flowery Branch Road. A second portable temporary signal will be installed at the intersection of SR 124 and Flowery Branch Road. The portable temporary signals shall fit on the existing right of way. The portable temporary signals shall be capable of video detection and adjustable signal timings. The DB Team shall install AM, PM, and school hour timings. The timing plans shall be reviewed and approved by GDOT with concurrence of Gwinnett DOT.

#### 7. Traffic Pacing

Traffic pacing will be allowed between the hours of 11 pm to 4 am daily in accordance with SP 150. Daytime pacing will be allowed for activities like blasting on a case by case basis. A minimum seven (7) day notice will be required for all requested daytime pacing.

8. The DB Team shall not install a complete closure of I-85 in either direction.

9. Gwinnett Braves and Gwinnett Area Concerts, Major Events, or Games:

No lane closures will be allowed that affects traffic a minimum of 2 hours before and 2 hours after a concert, Major Event, or Games. It is the responsibility of the DB Team to verify the schedule and plan The Work accordingly.

10. Thanksgiving through Christmas Holiday Restrictions:

No lane closures will be allowed during the day on SR 20 and on I-85 between I-985 to Hamilton Mill Road between the Wednesday before Thanksgiving to January 2<sup>nd</sup> on a yearly basis. It is the responsibility of the DB Team to verify the schedule and plan The Work accordingly.

11. Long Term Shoulder Closure:

Long term shoulder closures will be allowed on one shoulder with the Department's approval in areas where there is an inside and outside shoulder. The shoulder opposite of the closed shoulder shall have a minimum width of eight (8) feet. Shoulder closure will be allowed for a maximum of one hundred and eight (180) days and a maximum distance of one (1) mile. There should be at least one (1) mile between long term shoulder closures. Long term shoulder closure is defined as any shoulder closures longer than times allowed in this section.

12. Traffic Control End of Queue Protection

Traffic control end of queue protection shall be provided by the DB Team in accordance with SP 150.

## 18.4 Construction Requirements

### 18.4.1 DB Team Responsibility

*Supplement the following to Section 18.4.1 of Volume 3*

Milled surfaces cannot remain as driving surfaces when lane closures are removed and lanes are opened to traffic.

### 18.4.2 Access

*No additional requirements*

### 18.4.3 Detours

*Supplement the following to Section 18.4.3 of Volume 3*

The DB Team shall notify all local first responders and school systems thirty (30) days prior to implementing any detours.

## **19 MAINTENANCE DURING THE DESIGN-BUILD PERIOD**

### **19.1 General Requirements**

#### **19.1.1 *Reserved***

#### **19.1.2 *GDOT Obligation to Repair***

*No additional requirements*

### **19.2 Construction Maintenance Limits Plan**

*No additional requirements*

## 20 RESERVED

## 21 RESERVED

## 22 NOISE BARRIERS

### 22.1 General

The DB Team shall provide noise barrier to abate all impacted receptors, within a common noise environment, from the Project. At the project limits the DB Team shall construct a portion of a noise barrier in the environmental commitments table such that abatement is achieved for all receptors within the affected noise environment. All noise barrier panels shall be concrete with ashlar finish. Ashlar finish shall only be applied to the side of the panel facing the interstate. Ashlar finish shall be achieved with a concrete form liner approved by the Department. The ashlar pattern stone sizes shall vary from 4 inches to 40 inches with 3/4 inch deep by 3/4 inch wide joints.

Table 22-1: Noise Barrier Requirements

| <b>Barrier No.</b> | <b>General Location</b>   | <b>Length</b>     | <b>Height</b>     | <b>Area (Square Feet)</b> | <b>Benefitted Receptors</b> |
|--------------------|---|-------------------|-------------------|---------------------------|-----------------------------|
| 4-1                | <i>Located on the east side of I-85, beginning approximately 2,750 feet north of Hamilton Mill Road</i> | <i>1,700 feet</i> | <i>8-30 feet</i>  | <i>37,000</i>             | <i>18</i>                   |
| 4-2                | <i>Located on the west side of I-85, beginning approximately 7,230 feet north of Hamilton Mill Road</i> | <i>2,391 feet</i> | <i>12-30 feet</i> | <i>64,324</i>             | <i>36</i>                   |
| 4-3                | <i>Located on the east side of I-85, beginning approximately 1,150 feet north of Spout Springs Road</i> | <i>4,763 feet</i> | <i>18-24 feet</i> | <i>99,926</i>             | <i>102</i>                  |
| 4-4                | <i>Located on the west side of I-85, beginning at Spout Springs Road</i>                                | <i>3,998 feet</i> | <i>16-30 feet</i> | <i>112,180</i>            | <i>74</i>                   |
| 4-5                | <i>Located on the west side of I-85, beginning approximately 30 feet north of Flowery Branch Road</i>   | <i>2,434 feet</i> | <i>24-30 feet</i> | <i>71,926</i>             | <i>98</i>                   |
| 4-6                | <i>Located on the east side of I-85, beginning approximately 75 feet north of Flowery Branch Road</i>   | <i>1,781 feet</i> | <i>14-26 feet</i> | <i>40,876</i>             | <i>19</i>                   |

| <b>Barrier No.</b> | <b>General Location</b>  | <b>Length</b>     | <b>Height</b>     | <b>Area (Square Feet)</b> | <b>Benefitted Receptors</b> |
|--------------------|--|-------------------|-------------------|---------------------------|-----------------------------|
| 5-1                | <i>Located on the east side of I-85, beginning approximately 5000 feet north of Flowery Branch Road</i>                          | <i>2,250 feet</i> | <i>14-24 feet</i> | <i>43,102</i>             | <i>38</i>                   |
| 3                  | <i>Located on the east side of I-85, beginning approximately 700 feet north of SR 53 adjacent to the I-85 northbound on ramp</i> | <i>2,092 feet</i> | <i>12-28 feet</i> | <i>41,296</i>             | <i>65</i>                   |
| 4                  | <i>Located on the west side of I-85, beginning approximately 1,500 feet north of SR 53</i>                                       | <i>6,385 feet</i> | <i>24-30 feet</i> | <i>187,594</i>            | <i>138</i>                  |
| 9                  | <i>Located on the west side of I-85, beginning approximately 2,800 feet north of SR 60</i>                                       | <i>1,150 feet</i> | <i>8-18 feet</i>  | <i>17,599</i>             | <i>8</i>                    |

## 23 SUBMITTALS

### 23.1 General

*No additional requirement*

#### 23.1.1 Detailed Estimate of Quantities

*No additional requirement*

### 23.2 Design Submittals and Progress of Design Work

The DB Team shall provide Project Submittals detailed in Table 23-1: Master Submittal List below. Each required Submittal shall be delivered to GDOT in conformance of the review times provided below. The times provided are specifically for the review period required for GDOT to comment and GDOT to subsequently accept if all requirements of the DB Documents are met. Accuracy, completeness, and time spent to address GDOT comments are the responsibility of the DB Team. Not all Submittals listed in Table 23-1 may be required for the Project and some Submittals may be combined into a single Submittal such as the Management Plans; DB Team shall coordinate with GDOT in determining if Submittals may be omitted or combined.

#### ABBREVIATIONS FOR TABLE

|     |   |
|-----|---|
| ASC | Point File for Survey Data  |
| AR  | As Required   |
| DTM | Digital Terrain Model   |
| FS  | Full-size paper – meets GDOT Plan Presentation Guide  |
| HC  | Hard Copy – 8 ½ x 11 unless otherwise noted   |
| HS  | Half-size paper – meets GDOT Plan Presentation Guide  |
| MP  | Microsoft Project   |
| MS  | MicroStation File – Electronic  |
| NA  | Not Applicable  |
| NTP | Notice to Proceed   |
| PAS | Per Approved Schedule   |
| PDF | Adobe PDF – One complete file and individual plan sheet files meets GDOT Electronic Plans Process |

**Table 23-1: Master Submittal List**

| Section         | Volume | Submittal Item  | Format      | Quantity | Delivery Date   | Review Period* (Days) |
|-----------------|--------|---|-------------|----------|---|-----------------------|
| <b>Volume 3</b> |        |   |             |          |   |                       |
| 2               | 3      | Preliminary Schedule of Values  | AR, PDF     | 1        | Within 15 Days from NTP 1                                       | 14                    |
| 2               | 3      | Project Scheduler Qualifications  | AR, PDF     | 1        | Within 15 days from NTP 1                                       | 14                    |
| 2               | 3      | Schedule of Values  | AR, PDF     | 1        | Within 15 Days from acceptance of the Project Baseline Schedule | 14                    |
| 2               | 3      | Maximum Payment Curve   | AR, PDF     | 1        | Within 15 Days from acceptance of the Project Baseline Schedule | 14                    |
| 23              | 3      | Construction Phasing Plan (coordinate with ROW Acquisition Plan)                  | AR, PDF     | 1        | Within 30 Days from NTP 1                                       | 30                    |
| 23              | 3      | Submittal Schedule  | AR, P6, PDF | 1        | Within 30 Days from NTP 1                                       | 30                    |
| 23              | 3      | Design Submittal Guide / Index  | AR, PDF     | 1        | Prior to first design submittal                                 | 14                    |
| 23              | 3      | Updates to Design Submittal Guide / Index   | AR, PDF     | 1        | Updates required with subsequent submittals                     | 14                    |
| 2               | 3      | Interim (optional) Design Submittal(s)  | AR, PDF     | 1        | Per approved Submittal Schedule                                 | 14                    |
| 23              | 3      | Design and Construction Quality Records   | AR, PDF     | 1        | Always auditable; Submit at project completion                  | NA                    |
| 2               | 3      | Initial Project Design Data Book  | AR, HC, PDF | 3, 1     | Within 30 Days from NTP 1                                       | 30                    |
| 2               | 3      | Updates to Project Design Data Book (Preliminary Plan Submittal)                  | AR, HC, PDF | 1, 1     | Include with Preliminary Plans Submittal                        | 30                    |
| 2               | 3      | Updates to Project Design Data Book (Interim Design and other Design Submittals ) | AR, HC, PDF | 1, 1     | Include with Design Submittal                                   | 14                    |
| 2               | 3      | Updates to Project Design Data Book (Final Plans Submittal)                       | AR, HC, PDF | 1, 1     | Include with Final Plans Submittal                              | 45                    |
| 2               | 3      | Updates to Project Design Data Book (Plan Revisions During Construction)          | AR, HC, PDF | 1, 1     | Include with Plan Revisions During Construction                 | 14                    |

| Section                 | Volume   | Submittal Item  | Format                | Quantity        | Delivery Date   | Review Period* (Days) |
|-------------------------|----------|---|-----------------------|-----------------|---|-----------------------|
| 2                       | 3        | Final Project Design Data Book  | AR, HC, PDF           | 3, 1            | Include with Record Drawings (As-Built Plans) Submittal | 14                    |
| 23                      | 3        | Design Review meeting minutes   | AR, PDF               | 1               | within 7 days of Design Review meetings                 | 7                     |
| <b>Management Plans</b> |          |   |                       |                 |   |                       |
| <b>2</b>                | <b>3</b> | <b><i>Project Management Plan and any updates</i></b>                       | <b><i>AR, PDF</i></b> | <b><i>1</i></b> | <b><i>See Section 2 of Volume 3</i></b>                 | <b><i>60</i></b>      |
| 2                       | 3        | Design Quality Management Plan  | AR, PDF               | 1               | Within 30 Days from NTP 1                               | 30                    |
| 2                       | 3        | Construction Quality Management Plan  | AR, PDF               | 1               | See Section 2 of Volume 3                               | 30                    |
| 2                       | 3        | Safety Plan   | AR, PDF               | 1               | See Section 2 of Volume 3                               | 30                    |
| 2                       | 3        | Quality Management Plan   | AR, PDF               | 1               | Within 30 Days from NTP 1                               | 30                    |
| 2                       | 3        | Monthly Status Reports (includes cost, schedule, quality, status, etc.)     | AR, PDF               | 1               | 5 <sup>th</sup> of each Month                           | NA                    |
| 2                       | 3        | DB Team Internal Quality Audits   | AR, PDF               | 1               | As needed   | NA                    |
| 2                       | 3        | DB Team Non-Conformance Reports   | AR, PDF               | 1               | As needed   | NA                    |
| 3                       | 3        | GDOT–DB Team Communications Plan  | AR, PDF               | 1               | Within 30 Days from NTP 1                               | 30                    |
| 3                       | 3        | DB Team Input for Public Information and Communications Plan (PICP)         | AR, PDF               | 1               | within 10 Days of Receipt from GDOT                     | 14                    |
| 3                       | 3        | DB Team Reviews of Public Information Materials                             | AR, PDF               | 1               | As needed   | 14                    |
| 3                       | 3        | Public Information and Communication Report                                 | AR, PDF               | 1               | 5 <sup>th</sup> of each Month                           | NA                    |
| 3                       | 3        | Development Assistance for Project -Related Information for Project Website | AR, PDF               | 1               | As needed   | NA                    |
| <b>Schedules</b>        |          |   |                       |                 |   |                       |
| 2                       | 3        | Proposal Schedule, cost-loaded Proposal Schedule                            | AR, HS, P6, PDF       | 1, 3, 1, 1      | With Proposal   | NA                    |
| 2                       | 3        | Preliminary Baseline Schedule   | AR, P6, PDF           | 1, 1, 1         | Within 30 days of NTP 1                                 | 30                    |
| 2                       | 3        | Project Baseline Schedule   | AR, P6, PDF           | 1, 1, 1         | Within 120 Days from NTP 1                              | 30                    |
| 2                       | 3        | Revised Baseline Schedule   | AR, P6, PDF           | 1, 1, 1         | As required   | 30                    |
| 2                       | 3        | Monthly Schedule Update   | AR, P6, PDF           | 1, 1, 1         | 5 <sup>th</sup> of each Month                           | 14                    |
| 2                       | 3        | Recovery Schedule   | AR, P6, PDF           | 1, 1, 1         | As required   | 14                    |

| Section                        | Volume | Submittal Item   | Format        | Quantity | Delivery Date  | Review Period* (Days) |
|--------------------------------|--------|--|---------------|----------|--|-----------------------|
| <b>Existing Infrastructure</b> |        |  |               |          |  |                       |
| 2                              | 3      | Construction Maintenance Limits Plan   | AR, PDF       | 1        | Within 150 Days from NTP 1   | 30                    |
| 2                              | 3      | Pre-Construction Photos and Videos   | AR, PDF       | 1        | Within 180 Days from NTP 1, and Prior to Start of Construction   | 30                    |
| <b>Environmental</b>           |        |  |               |          |  |                       |
| 4                              | 3      | GDOT - Led Governmental Approvals  | AR, PDF       | 1        | As needed, per the approved Submittal Schedule   | Table 4-1             |
| 4                              | 3      | Environmental Management System (EMS)  | AR, PDF       | 1        | See Section 4 of Volume 3  | 30                    |
| 4                              | 3      | Environmental Compliance and Mitigation Plan (ECMP)  | AR, PDF       | 1        | See Section 4 of Volume 3  | 30                    |
| 4                              | 3      | Environmental Protection Training Plan (EPTP)  | AR, PDF       | 1        | See Section 4 of Volume 3  | 30                    |
| 4                              | 3      | Hazardous Materials Management Plan (HMMP)   | AR, PDF       | 1        | See Section 4 of Volume 3  | 30                    |
| 4                              | 3      | Environmental Communication Plan (CP)  | AR, PDF       | 1        | See Section 4 of Volume 3  | 30                    |
| 4                              | 3      | Construction Monitoring Plan (CMP)   | AR, PDF       | 1        | See Section 4 of Volume 3  | 30                    |
| 4                              | 3      | UST and Hazardous Waste Site Investigation Report  | AR, PDF       | 1        | See Section 4 of Volume 3  | 30                    |
| 4                              | 3      | Section 404, CWA, permit   | AR, PDF       | 1        | **   | Table 4-1             |
| 4                              | 3      | Water Quality Certification (concurrently with the USACE Nationwide Permit)                      | AR, PDF       | 1        | **   | Table 4-1             |
| 4                              | 3      | Applications to Regulatory Agencies, Application revisions, supplements                          | AR, PDF       | 1        | As needed  | ***                   |
| <b>Utilities</b>               |        |  |               |          |  |                       |
| 6                              | 3      | Supplemental verification of Overhead/Subsurface Utility Engineering (SUE) Investigations - QL-B | AR, MS<br>PDF | 1        | NTP (1) + 45 Calendar Days (Or as Determined by State Subsurface Utilities Engineer at the SUE Kick-Off meeting which is concurrent with the first utility coordination meeting) | NA                    |
| 6                              | 3      | SUE Utility Impact Analysis "UIA"  | AR, PDF       | 1        | NTP 1 + 120 Calendar Days (Or as Determined by State Subsurface Utilities Engineer at the SUE Kick-Off   | NA                    |

| Section | Volume | Submittal Item  | Format        | Quantity  | Delivery Date   | Review Period* (Days)                             |
|---------|--------|---|---------------|---|---|---|
|         |        |   |               |   | meeting which is concurrent with the first utility coordination meeting)                          |   |
| 6       | 3      | Overhead/Subsurface Utility Engineering (SUE) Investigations - QL-A   | AR,MS,PDF     | Plans: 2 for each Utility Owner +3 for Dept. and MS files | UIA + 45 Calendar Days  | NA  |
| 6       | 3      | Overhead/Subsurface Utilities Engineering (SUE) Information to Utilities for Review (URPN Letter 1a - SUE Submit to Utility Companies Revise) | FS,HS,PDF, MS | Plans: 2 for each Utility Owner +3 for Dept. and MS files | NTP 1 + 5 Calendar Days (Or as Determined by District Utilities Engineer at SUE Kick-Off meeting) | 5 days for Dept. + 30 days for each Utility Owner |
| 6       | 3      | Relocated Utility Plans (URPN Letter 2 - 2nd Submission Letter (Existing and Proposed))   | FS,HS,PDF, MS | 3, 1  | Concurrently w/ Accepted SUE Verification by Utility Owner  | 5 days for Dept. + 90 days for each Utility Owner |
| 6       | 3      | Utility Retention Request   | AR, PDF       | 1   | As needed   | 14  |

| Section | Volume | Submittal Item                                   | Format                            | Quantity  | Delivery Date   | Review Period* (Days)   |
|---------|--------|--|-----------------------------------|---|---|---|
| 6       | 3      | Preliminary Utility Status Report                | HC, PDF                           | Agreement<br>s: 3 hard<br>copy, 1<br>electronic<br>pdf<br>Plans: 2 for<br>each Utility<br>Owner + 3<br>for Dept.<br>and MS<br>files | NTP 1 + 180 Days<br>Concurrently w/<br>Accepted Relocated Utility Plans and<br>(URPN Letter 6 - Notice to Proceed<br>with Permit) | 10-days<br>+<br>5 days  |
| 6       | 3      | Utility Plans/Agreements<br>(Utility NTP Letter) | Plans/<br>Agreements<br>HS,PDF,MS | 1, 3, 1, 1  |   | Agreeme<br>nts: 30<br>days for<br>Dept. +<br>60 days<br>for each<br>Utility<br>Owner<br><br>Plans:<br>30 days |
| 6       | 3      | Utility A/O Claims of Real Property Interests    | AR, PDF                           | 1   | See Section 6 of Volume 3   | 14  |
| 6       | 3      | Utility Adjustment Field Modification Procedure  | AR, PDF                           | 1   | Prior to submittal of any Utility Work<br>Plan  | 14  |
| 6       | 3      | Utility Emergency Response Plan                  | PDF                               | 1   | 30 Days Prior to NTP 3  | 14  |
| 6       | 3      | Utility As-Built Plans                           | FS, HS,<br>PDF, MS                | 1   | Concurrently w/Accepted Construction<br>As-Built Plans  | 30 Days<br>for the<br>Departm   |

| Section                        | Volume | Submittal Item   | Format       | Quantity | Delivery Date                       | Review Period* (Days)               |
|--------------------------------|--------|--|--------------|----------|-------------------------------------|-------------------------------------|
|                                |        |  |              |          |                                     | ent plus 30 Days for Utility Owners |
| 6                              | 3      | All Utility Meeting Minutes                                  | AR, PDF      | 1        | Within 7 days of Utility Meeting    | 7                                   |
| <b>Geotechnical</b>            |        |  |              |          |                                     |                                     |
| 8                              | 3      | Geotechnical Reports   | AR, PDF      | 1        | See Section 8 of Volume 3           | 30                                  |
| 8                              | 3      | Soils Reports  | AR, PDF      | 1        | See Section 8 of Volume 3           | 30                                  |
| 23                             | 3      | WFI (Wall Foundation Investigation)                          | AR, PDF      | 1        | **                                  | 30                                  |
| 23                             | 3      | BFI (Bridge Foundation Investigation)                        | AR, PDF      | 1        | **                                  | 30                                  |
| 8                              | 3      | Blasting Plan  | AR, PDF      | 1        | As needed                           | 30                                  |
| <b>Survey</b>                  |        |  |              |          |                                     |                                     |
| 9                              | 3      | Survey Control Package                                       | AR, ASC, PDF | 1        | Per the approved Submittal Schedule | 30                                  |
| 9                              | 3      | Property Owner Notification Letters                          | AR, PDF      | 1        | As needed                           | 10                                  |
| 9                              | 3      | Bound Field Notes  | AR, PDF      | 1        | Prior to Project Completion         | 14                                  |
| 9                              | 3      | Topographic Mapping  | AR, DTM, PDF | 1        | See Section 9 of Volume 3           | 14                                  |
| <b>Grading/Roadway</b>         |        |  |              |          |                                     |                                     |
| 10, 11                         | 3      | Preliminary Grading/Roadway Plans (60%)                      | AR, PDF      | 1        | Per the approved Submittal Schedule | 14                                  |
| 10, 11                         | 3      | Final Grading/Roadway Plans (100%)                           | AR, PDF      | 1        | Per the approved Submittal Schedule | 14                                  |
| 11                             | 3      | Vibration Control Plan                                       | AR, PDF      | 1        | See Section 11 of Volume 3          | 14                                  |
| 11                             | 3      | Technical Data For Longitudinal Emergency Access Gate System | AR, PDF      | 1        | See Section 11 of Volume 3          | 14                                  |
| 11                             | 3      | Emergency access configuration/interval                      | AR, PDF      | 1        | Per the approved Submittal Schedule | 14                                  |
| <b>Lighting/Electric/Power</b> |        |  |              |          |                                     |                                     |
| 11,17                          | 3,2    | Electrical Power Calculations                                | AR, PDF      | 1        | See Section 17 of Volume 2          | 14                                  |

| Section  | Volume   | Submittal Item   | Format                 | Quantity       | Delivery Date                               | Review Period* (Days) |
|--|----------|--|------------------------|----------------|---|-----------------------|
| 17   | 2        | Electrical System Operations and Maintenance Manuals               | AR, PDF                | 1              | See Section 17 of Volume 2                  | 14                    |
| 17   | 2        | Electrical System Training Plan                                    | AR, PDF                | 1              | See Section 17 of Volume 2                  | 14                    |
| 11,17  | 3,2      | Electrical Design Voltage Drop Calculations                        | AR, PDF                | 1              | See Section 17 of Volume 2                  | 14                    |
| <b>Drainage</b>                                    |          |  |                        |                |   |                       |
| 12   | 3        | Drainage Design Report (Phased)                                    | AR, PDF                | 1              | Per the approved Submittal Schedule         | 30                    |
| 12   | 2        | Storm Sewer Drainage Report(s)                                     | AR, PDF                | 1              | Per the approved Submittal Schedule         | 14                    |
| 12   | 3        | Annual Outfall Inspection Report                                   | AR, PDF                | 1              | Within 30 days of Annual DB Team Inspection | 30                    |
| 12   | 3        | Post-Construction Evaluation Report                                | AR, PDF                | 1              | See Section 12 of Volume 3                  | 30                    |
| <b>Structures/Bridges</b>                          |          |  |                        |                |   |                       |
| 13   | 3        | Preliminary Bridge Layouts   | AR, FS, HS, PDF        | 2, 6, 1        | **  | 14                    |
| 13   | 3        | Preliminary Wall Layouts   | AR, FS, HS, PDF        | 2, 6, 1        | **  | 14                    |
| <b>13</b>  | <b>3</b> | <b>Final Bridge Plans</b>  | <b>AR, FS, HS, PDF</b> | <b>2, 6, 1</b> | <b>**</b>                                   | <b>30</b>             |
| <b>13</b>  | <b>3</b> | <b>Final Wall Plans</b>  | <b>AR, FS, HS, PDF</b> | <b>2, 6, 1</b> | <b>**</b>                                   | <b>30</b>             |
| <b>Signing, Pavement Marking and Signalization</b> |          |  |                        |                |   |                       |
| <b>16</b>  | <b>3</b> | <b>Preliminary Signing &amp; Marking, Signal Plans (per phase)</b> | <b>AR, FS, HS, PDF</b> | <b>2, 6, 1</b> | <b>Per the approved Submittal Schedule</b>  | <b>45</b>             |
| <b>16</b>  | <b>3</b> | <b>Final Signing &amp; Marking, Signal Plans</b>                   | <b>AR, FS, HS, PDF</b> | <b>2, 6, 1</b> | <b>Per the approved Submittal Schedule</b>  | <b>45</b>             |
| 16   | 3        | Preliminary Permanent Signing Unveiling Plan                       | AR, PDF                | 1              | 120 Days prior to open to Traffic           | 21                    |
| 16   | 3        | Final Permanent Signing Unveiling Plan                             | AR, PDF                | 1              | 60 Days prior to open to Traffic            | 14                    |
| 16   | 3        | Traffic Signal Permitting /Engineering Study (per phase)           | AR, PDF                | 1              | Per the approved Submittal Schedule         | 30                    |
| 16   | 3        | New Sign requests  | AR, PDF                | 1              | As needed                                   | 14                    |

| Section   | Volume | Submittal Item   | Format          | Quantity | Delivery Date  | Review Period* (Days) |
|---|--------|--|-----------------|----------|--|-----------------------|
| 16  | 3      | Overhead Sign Support Structures Concept Plans               | AR, PDF         | 1        | Per the approved Submittal Schedule                            | 14                    |
| 16  | 3      | Overhead Sign Support Structures Final Plans                 | AR, PDF         | 1        | Per the approved Submittal Schedule                            | 14                    |
| 16  | 3      | Traffic Signal Timing Plans                                  | AR, PDF         | 1        | Per the approved Submittal Schedule                            | 14                    |
| 16  | 3      | Traffic Signal O & M Documentation                           | AR, PDF         | 1        | Per the approved Submittal Schedule                            | 14                    |
| <b>ITS and Network</b>                            |        |  |                 |          |  |                       |
| 17  | 3      | Preliminary ITS Plans  | AR, FS, HS, PDF | 2, 6, 1  | Per the approved Submittal Schedule                            | 30                    |
| 17  | 3      | Final ITS Plans  | AR, FS, HS, PDF | 2, 6, 1  | Per the approved Submittal Schedule                            | 30                    |
| 17  | 3      | 3D Visualization (ITS) Model                                 | AR,             | 1        | Per the approved Submittal Schedule Prior to Preliminary Plans | 30                    |
| 17  | 3      | ITS Maintenance and Repair Plan                              | AR, PDF         | 1        | 30 Days from NTP 1   | 30                    |
| 17  | 3      | ITS Responsive and Diagnostic Repair Plan                    | AR, PDF         | 1        | 30 Days from NTP 1   | 30                    |
| 17  | 3      | Fiber Duct Validation Report                                 | AR, PDF         | 1        | 90 Days from NTP 1   | NA                    |
| 17  | 3      | Installation and Integration Plan                            | AR, PDF         | 1        | 120 Days from NTP 1  | 90                    |
| 17  | 3      | Final As-Builts  | AR, FS, HS, PDF | 2, 6, 1  | 30 Days After to Substantial Completion                        | 60                    |
| 17  | 3      | Manufacturer Equipment Documentation/Manufacturer Warranties | AR, PDF         | 1        | 120 Days prior to Substantial Completion                       | 14                    |
| <b>Traffic Control</b>                            |        |  |                 |          |  |                       |
| 18  | 3      | Transportation Management Plan                               | AR, PDF         | 1        | Within 120 Days from NTP 1                                     | 30                    |
| 18  | 3      | Traffic Control Plans (each Phase)                           | AR, PDF         | 1        | Per the approved Submittal Schedule                            | 14                    |
| 18  | 3      | GP lane closure or reduced widths                            | AR, PDF         | 1        | Must also meet PICP for public coordination timing             | 30                    |
| <b>Maintenance During the Design-Build Period</b> |        |  |                 |          |  |                       |
| 2,23  | 3      | Construction Maintenance Limits Plan                         | AR, FS, HS, PDF | 2, 6, 1  | Prior to given Phase, approval before construction             | 14                    |
| <b>Additional Submittals</b>                      |        |  |                 |          |  |                       |
| 23  | 3      | Preliminary Plans (60%) (complete set)                       | AR, FS, HS,     | 6, 10, 1 | **   | 30                    |

| Section   | Volume   | Submittal Item   | Format          | Quantity | Delivery Date              | Review Period* (Days) |
|-----------|----------|--|-----------------|----------|----------------------------|-----------------------|
|           |          |  | PDF             |          |                            |                       |
| <b>23</b> | <b>3</b> | <b>Interim Design</b>  | AR, FS, HS, PDF | 6, 10, 1 | **                         | <b>30</b>             |
| 23        | 3        | Final Plans (100%) per Construction Phase (complete set)       | AR, FS, HS, PDF | 6, 10, 1 | **                         | 45                    |
| 23        | 3        | Notice of Intent (NOI) with final/signed Erosion Control Plans | AR, PDF         | 1        | **                         | 14                    |
| 23        | 3        | Shop Drawings  | AR, PDF         | 1        | **                         | 14                    |
| 23        | 3        | Temporary Works - where public safety may be affected          | AR, PDF         | 1        | **                         | 14                    |
| 23        | 3        | Plan Revisions During Construction                             | AR, PDF         | 1        | **                         | 14                    |
| 23        | 3        | Record Drawings (As-Built Plans) per Construction Phase        | AR, FS, HS, PDF | 6, 10, 1 | **                         | 14                    |
| 23        | 3        | Drainage Plans   | AR, FS, HS, PDF | 2, 6, 1  | **                         | 30                    |
| 23        | 3        | Hydraulic and Hydrology Report                                 | AR, PDF         | 1        | **                         | 30                    |
| 23        | 3        | Pavement Joints and Elevations                                 | AR, PDF         | 1        | **                         | 14                    |
| 23        | 3        | Restoration/Mitigation   | AR, PDF         | 1        | **                         | 14                    |
| 23        | 3        | Grading Plans  | AR, FS, HS, PDF | 2, 6, 1  | **                         | 14                    |
| 23        | 3        | Landscaping and Permanent Erosion Control Plans                | AR, FS, HS, PDF | 2, 6, 1  | **                         | 14                    |
| 23        | 3        | Temporary Erosion Control Plans                                | AR, FS, HS, PDF | 2, 6, 1  | **                         | 14                    |
| 23        | 3        | Intersection Design Studies                                    | AR, PDF         | 1        | **                         | 14                    |
| 23        | 3        | Draft Design Specifications, Reports, Whitepapers, etc.        | AR, PDF         | 1        | **                         | 14                    |
| 23        | 3        | Final Design Specifications, Reports, Whitepapers, etc.        | AR, PDF         | 1        | **                         | 14                    |
| 23        | 3        | Site observation compliance report                             | AR, PDF         | 1        | See Section 23 of Volume 3 | 14                    |
| All       | All      | Meeting Minutes  | AR, PDF         | 1        |                            | 14                    |

| Section | Volume | Submittal Item | Format  | Quantity | Delivery Date                              | Review Period* (Days) |
|---------|--------|----------------|---------|----------|--|-----------------------|
| N/A     | N/A    | Subcontracts   | AR, PDF | 1        | In accordance with the Construction Manual | 14                    |

\*Review period is the period required for the generation of comments or the review time to determine the sufficiency of the document and the state or status of the document per Section 23.3. Multiple review periods shall be planned for "Accepted by GDOT" status.

If a submittal is not listed the review time shall be 30 days.

\*\* Based upon the accepted Baseline Schedule

\*\*\* Time of review will be based upon actual impact to project

\*\*\*\* See Technical Provisions

**BOLDED and *Italicized* = requires FHWA review and approval**

| ABBREVIATIONS TABLE |   |
|---------------------|---|
| ASC                 | Point File for Survey Data  |
| AR                  | As Required   |
| DTM                 | Digital Terrain Model   |
| FS                  | Full-size paper – meets GDOT Plan Presentation Guide  |
| HC                  | Hard Copy – 8 ½ x 11 unless otherwise noted   |
| HS                  | Half-size paper – meets GDOT Plan Presentation Guide  |
| MP                  | Microsoft Project   |
| MS                  | MicroStation File – Electronic  |
| NTP                 | Notice to Proceed   |
| PAS                 | Per Approved Schedule   |
| PDF                 | Adobe PDF – One complete file and individual plan sheet files meets GDOT Electronic Plans Process |

### **23.2.1 Construction Phasing and Additional Submittal Requirements**

*No additional requirement*

## **23.3 Submittals Process**

*No additional requirement*

## **23.4 Shop Drawings and Temporary Works Submittals**

*No additional requirement*

### **23.4.1 General**

*No additional requirement*

### **23.4.2 Work Items Requiring Shop Drawings**

*No additional requirement*

### **23.4.3 Schedule of Submittals**

*No additional requirement*

### **23.4.4 Style, Numbering, and Material of Submittals**

*No additional requirement*

### **23.4.5 Submittals and Copies**

*No additional requirements*

### **23.4.6 Processing of Shop Drawings**

*No additional requirements*

### **23.4.7 Other Requirements for Shop Drawings for Bridges**

*No additional requirements*

### **23.4.8 Modifications on Construction**

*No additional requirements*

## **23.5 As-Built Plans**

*No additional requirements*

**Georgia Department of Transportation**  
**Technical Provisions**  
**For**  
**Design-Build Agreement**  
**P.I. No. 110610**  
**I-85 Widening**

**VOLUME 2 ATTACHMENTS**

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| Attachment 6-1  | <u>Atlanta Gas Light MOU</u>   |
| Attachment 6-2  | <u>AT&amp;T Georgia MOU</u>  |
| Attachment 6-3  | <u>City of Braselton MOU</u>   |
| Attachment 6-4  | <u>City of Buford MOU</u>  |
| Attachment 6-5  | <u>Comcast Cable MOU</u>   |
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| Attachment 6-7b | <u>Georgia Power Transmission MOU</u>  |
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|                  |  |
|------------------|--|
| Attachment 6-9   | <u>Jackson County Water &amp; Sewage Authority MOU</u> |
| Attachment 6-10  | <u>Jackson EMC MOU</u>                                 |
| Attachment 6-11  | <u>City of Jefferson MOU</u>                           |
| Attachment 6-12  | <u>Liberty Utilities MOU</u>                           |
| Attachment 6-13a | <u>Windstream Communications MOU</u>                   |
| Attachment 6-13b | <u>Windstream Communications MOU</u>                   |
| Attachment 11-1  | <u>Barrier Gate Location Map</u>                       |
| Attachment 13-1  | <u>SP 443 Elastomeric Profile Bridge Joint Seals</u>   |
|                  | <u>SP 447 Modular Expansion Joints</u>                 |
|                  | <u>SP 449 Silicone Seal</u>                            |
|                  | <u>SP 500 HPC</u>                                      |
|                  | <u>SP 500 Light Weight Concrete</u>                    |
|                  | <u>SP 500 LRFD</u>                                     |
|                  | <u>SP 500 Mass Concrete</u>                            |
|                  | <u>SP 511 Mechanical Bar Splice</u>                    |
|                  | <u>SP 865 Manufacture of Precast Concrete Members</u>  |
| Attachment 16-1  | <u>GDOT Ramp Meter Warrants</u>                        |
| Attachment 17-1  | <u>Surge Protection</u>                                |

# **Georgia Department of Transportation**

## **Technical Provisions**

### **For**

## **Design-Build Agreement**

### **P.I. No. 110610**

## **I-85 Widening**

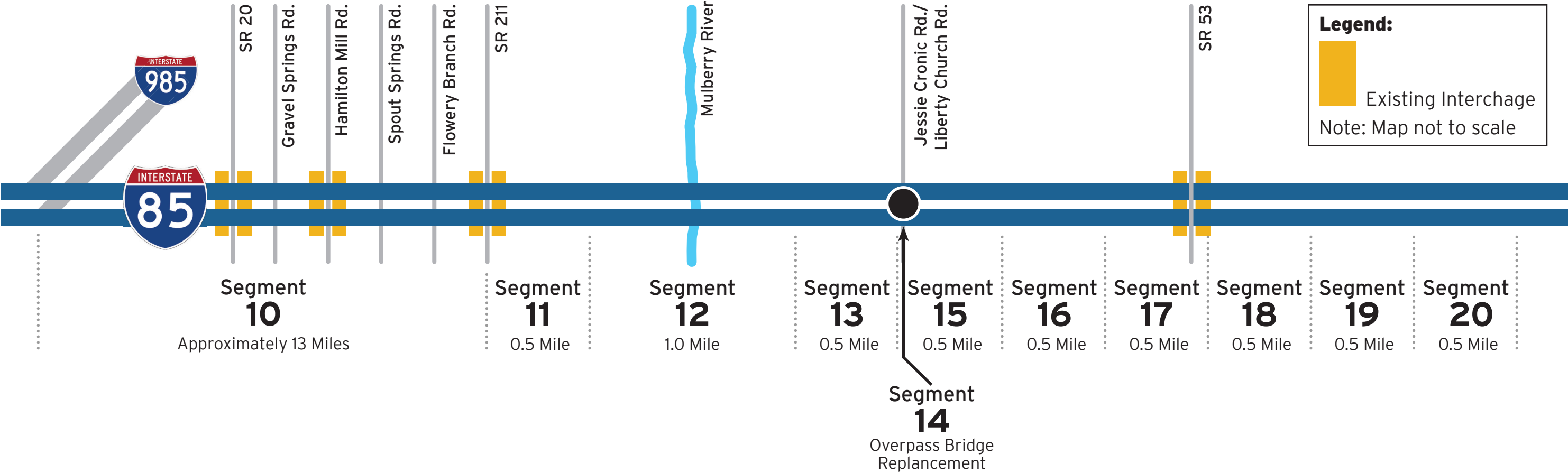
### **Attachment 1-1**

## **Segment Layout Diagram**

# Attachment 1-1

## Segment Layout Diagram

P.I. No. 110610 - I-85 Widening - Design-Build Project



# **Georgia Department of Transportation**

## **Technical Provisions For Design-Build Agreement P.I. No. 110610**

### **I-85 Widening Project**

#### **Attachment 4-1**

## **SUPPLEMENTAL SPECIFICATION 107.23 - LEGAL REGULATIONS AND RESPONSIBILITY TO THE PUBLIC – PROTECTION OF ENVIRONMENTALLY SENSITIVE SPECIES**

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

**SPECIAL PROVISION**

**PROJECT: NHIMO-0085-02(165) & NHIMO-0085-02(166), Gwinnett,  
Barrow, & Jackson Counties  
P.I. Nos. 110610 & 0013545**

**Section 107 – Legal Regulations and Responsibility to the Public**

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*Add the following to Subsection 107.23:*

**H. Protection of Environmentally Sensitive Species**

The following conditions are intended as a minimum to protect these species and their habitat during any activities that are in close proximity to the known location(s) of these species.

1. All Project personnel employed to work on this project shall be advised about the potential presence and appearance of the state protected Chattahoochee crayfish (*Cambarus howardi*) and the Altamaha shiner (*Cyprinella xaenura*). All personnel shall be advised that there are penalties for killing, capturing, or selling of the Chattahoochee crayfish or the Altamaha shiner under the Georgia Endangered Wildlife Act of 1973. Habitat for the Chattahoochee crayfish is present in streams PS 2, PS 46, PS 70, PS 71, PS 119, PS 125, PS 127, PS 131, and PS 135. Habitat for the Altamaha shiner is present in streams PS 63, PS 83, PS 84, PS 142, and PS 146. Pictures and habitat information will be provided at the preconstruction conference and shall be posted in a conspicuous location in the Project field office until such time that Project construction has been completed and time charges have stopped.
2. At any time, concrete debris, paving materials, litter, or demolition debris shall not be allowed to fall or be placed into PS 2, PS 46, PS 63, PS 70, PS 71, PS 83, PS 84, PS 119, PS 125, PS 127, PS 131, PS 135, PS 142, and PS 146.
3. Equipment staging areas and equipment maintenance areas (particularly for oil changes) shall be located at least 200 feet from the stream banks of PS 2, PS 46, PS 63, PS 70, PS 71, PS 83, PS 84, PS 119, PS 125, PS 127, PS 131, PS 135, PS 142, and PS 146 to minimize the potential for wash water, petroleum products, or other contaminants from construction equipment entering streams.
4. All stockpiled soils and materials shall be placed at least 200 feet away from the stream banks to minimize potential runoff into PS 2, PS 46, PS 63, PS 70, PS 71, PS 83, PS 84, PS 119, PS 125, PS 127, PS 131, PS 135, PS 142, and PS 146.
5. Pesticides or herbicides shall not be used within 200 feet of the stream banks of PS 2, PS 46, PS 63, PS 70, PS 71, PS 83, PS 84, PS 119, PS 125, PS 127, PS 131, PS 135, PS 142, and PS 146. Fertilizer shall only be used while grassing graded areas to achieve site stabilization.

**107.23H Protection of Ecological Resources, P.I. Nos. 110610 & 0013545, Gwinnett, Barrow, and Jackson Counties.**

6. The Project Engineer shall be notified immediately in the event of an erosion control failure that allows discharge of sediment into PS 2, PS 46, PS 63, PS 70, PS 71, PS 83, PS 84, PS 119, PS 125, PS 127, PS 131, PS 135, PS 142, and PS 146. The Project Engineer in turn shall notify the State Environmental Administrator, Georgia Department of Transportation, Office of Environmental Services at [ecology\\_submittals@dot.ga.gov](mailto:ecology_submittals@dot.ga.gov).
7. In the event that any incident occurs that causes harm or injury to the Chattahoochee crayfish or the Altamaha shiner along the Project corridor, the incident shall immediately be reported to the Project Engineer who in turn will notify the State Environmental Administrator, Georgia Department of Transportation, Office of Environmental Services at [ecology\\_submittals@dot.ga.gov](mailto:ecology_submittals@dot.ga.gov). All activity, except traffic control and erosion control, shall cease pending consultation by the Department with the U.S. Fish and Wildlife Service and the lead Federal Agency.
8. A log detailing any incidents that cause harm or injury to the Chattahoochee crayfish or the Altamaha shiner in or adjacent to the Project shall be kept until such time that Project construction has been completed and time charges have stopped. Following Project completion, the log and a report summarizing any incidents that caused harm or injury to these species shall be submitted to the Project Engineer and the State Environmental Administrator, Georgia Department of Transportation, Office of Environmental Services, 600 West Peachtree Street NW, Atlanta, GA 30308. The GDOT in turn will provide copies of the report to the U.S. Fish and Wildlife Service, the Georgia Department of Natural Resources, and the lead Federal Agency.
9. All costs pertaining to any requirement contained herein shall be included in the overall bid submitted unless such requirement is designated as a separate Pay Item in the Proposal.

# STATE PROTECTED SPECIES ON THE PROJECT

## Chattahoochee Crayfish

(*Cambarus howardi*)



### Description:

- Adults reach a maximum size of 1 ¼ inches
- May appear bronze-green on top with bluish-green claws
- Tail fades from green to yellow-brown
- Orange-brown bands may be present at the joints of appendages including claws, legs, and tail

### Habitat:

- Found in clear, free flowing water, especially in shallow riffles with quickly flowing water
- During the day, specimens often seek shelter under rocks
- May be found in a range of stream sizes, from smaller tributary streams to the larger rivers

**Protected By:** Georgia Endangered Wildlife Act of 1973 (O.C.G.A § 27-3-130)

**Capturing, killing or selling this animal may result in criminal penalties.**

**See Special Provision 107.23 H.**

# STATE PROTECTED SPECIES ON THE PROJECT

## Altamaha Shiner (*Cyprinella xaenura*)



### Description:

- Silvery olive coloration with dark stripe along back
- Dark spot at base of tailfin
- Maximum length of about 4 inches

### Habitat:

- Small rivers and their tributaries
  - Mostly found in small pools with sandy or rocky substrates

**Protected By:** Georgia Endangered Wildlife Act of 1973 (O.C.G.A § 27-3-130)

**Capturing, killing or selling this animal may result in  
criminal penalties.**

**See Special Provision 107.23 H.**



# **Georgia Department of Transportation**

## **Technical Provisions**

### **For**

## **Design-Build Agreement**

### **P.I. No. 110610**

## **I-85 Widening**

### **Attachment 6-1**

## **Atlanta Gas Light MOU**

Georgia DOT Project: I-85 widening  
GDOT P.I. 0110610 & 0013545

## DESIGN-BUILD MEMORANDUM OF UNDERSTANDING

between the  
Georgia Department of Transportation (hereafter the DEPARTMENT)  
and  
Atlanta Gas Light Company (AGLC) (hereafter the OWNER)

Whereas GDOT, hereafter referred to as the DEPARTMENT proposes to undertake a design-build project hereafter referred to as PROJECT to as PROJECT # 110610 & 0013545 to Widen and reconstruct lanes in each direction from Hamilton Mill Road to SR 211 within Gwinnett and Barrow County, Georgia, and from SR 211 to UA 129 within Barrow and Jackson County, Georgia by contract through competitive bidding procedures; and,

Whereas the DEPARTMENT will accomplish the PROJECT through a Design Consultant, Design Consultant Team and/or Contractor, hereafter referred to as CONTRACTOR; and the utility owner hereafter referred to as the OWNER, and

Whereas, where OWNER has property rights ("Prior Rights") at the location of the PROJECT, OWNER will provide written evidence as to said prior rights within the area and will provide written documentation of prior rights relating to any individual crossing or Utility Facility, at the location of the PROJECT; and

Whereas, OWNER acknowledges that, generally, absent a showing of prior rights, the costs of relocation, protection, removal, or adjustment performed by OWNER shall be borne by OWNER; and

Whereas, pursuant to O.C.G.A. § 32-6-170(b), DEPARTMENT is authorized to pay or participate in the payment of the costs of relocation, protection, or adjustment of OWNER'S facilities where DEPARTMENT has made the determination that (i) such payments are in the best interest of the public and necessary in order to expedite the staging of the design-build project; and (ii) the costs of the removal, relocation, protection, or adjustment of such facilities are included as part of the Contract between the Department and the Department's roadway contractor for the design-build project; and

### 1. Type of Utility

OWNER has the following utility facilities which may need to be adjusted or relocated as a result of the proposed PROJECT:

Type of facility or facilities of OWNER:

- ☐ Domestic water mains and distribution lines and associated appurtenances
- ☐ Sanitary Sewer facilities and/or Storm Drainage System
- ☐ Electrical Distribution (overhead and underground) wires, poles, etc.
- ☐ Electrical Transmission (overhead and underground) wires, poles, etc.
- ☒ Natural Gas Distribution Facilities (underground)
- ☐ Natural Gas Transmission Facilities (underground)
- ☐ Petroleum Pipeline (underground)
- ☐ Telecommunications facilities and equipment
- ☐ Cable TV facilities
- ☐ Street Lighting
- ☐ Internet Data Service
- ☐ Other Facilities (Description) \_\_\_\_\_

## 2. New Utility Facilities Proposed (Betterment)

OWNER desires the following to be installed as new additional facilities within the PROJECT.  
Insert here or attach a detailed description of proposed new additional utility installations:

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## 3. Assignment of Responsibilities for Design and Construction

This MEMORANDUM OF UNDERSTANDING and the following shall serve as a *basis* for assignment of responsibilities and costs for the DEPARTMENT, CONTRACTOR and the OWNER to enter into a Standard Utility Agreement (SUA) or Contract Item Agreement (CIA), if necessary, with OWNER once the PROJECT is awarded to the CONTRACTOR. For a PROJECT implementation, GDOT will not have in its possession exact costing plans to be utilized to determine exact locations of the removal, relocation, protection, or adjustment. However, Overhead/Subsurface Utility Engineering (SUE) investigations plans exist providing the best information and signifying the layout of known existing facilities. Please use these plans for developing the final determination of services as indicated below. The CONTRACTOR developed plans will be provided to the OWNER after the design build project is awarded by GDOT which shall be used by the CONTRACTOR as the final basis for the SUA or CIA. **Betterment costs will be the OWNER'S responsibility.**

**NOTE: Water and Sewer Design and Construction relocation work put in the contract will automatically be accomplished by the DEPARTMENT'S CONTRACTOR. The UTILITY OWNER will still have design approval authority. (No Pre-Approved Contractor/Consultant List required, leave page 6 blank). If you are a Water & Sewer Utility and choose to put your relocation Design and Construction in the contract, please check Design and Construction under Option 2 under 3B. Owner's electing to perform their own design, at their own cost, please select design under 3C.**

OWNER hereby intends to:

- 3A. OWNER, at the DEPARTMENT'S cost through an Agreement, will provide the following services for the properties for which it has established prior rights (Check to signify):

Design \_\_\_\_\_  
Construction \_\_\_\_\_

- 3B. OWNER, at the CONTRACTOR'S cost, for any removal, relocation, protection, adjustment and/or design (Regardless of Prior Rights) will allow their facilities to be placed into the DEPARTMENT'S contract for the following services pursuant to O.C.G.A. § 32-6-170(b). The CONTRACTOR will add the removal, relocation, protection, materials, adjustment and/or design cost, excluding betterment, to the overall PROJECT's cost. (Check to signify):

**Option 1: OWNER wants the work to be performed by the OWNER's pre-approved Design Consultants and/or Contractors.**

Design \_\_\_\_\_  
Construction   X  

**Option 2: OWNER wants the DEPARTMENT'S CONTRACTOR to perform the design and/or construction. (Check to signify):**

Design \_\_\_\_\_  
Construction \_\_\_\_\_ **If both are checked, please leave page 6 blank.**

As per this section, all work necessary for the removal, relocation, protection, or adjustment of the described utilities in accordance with the plans when approved shall be included in the project contract and accomplished by the CONTRACTOR except as follows (Check none or list any work items to be performed by the OWNER)

None   X  

Excluded Items \_\_\_\_\_

\_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- 3C. OWNER, at OWNER'S cost, will provide the following services (Check to signify):

Design   X    
Construction \_\_\_\_\_

**The following is hereby mutually agreed to and understood by both parties:**

1. The identification of existing facilities including preparation of Overhead/Subsurface Utility Engineering (SUE) investigations plans will be accomplished by the DEPARTMENT prior to award of the PROJECT and thereafter supplemented by the CONTRACTOR.
2. The CONTRACTOR shall coordinate reviews of the utility relocation information and obtain acceptance from the OWNER and DEPARTMENT when required. However; the OWNER shall apply for and obtain any required permits from the DEPARTMENT and perform any final design or proprietary design needed to administer its own relocation work if the work will not be included in the contract. If the preliminary plans indicate that no conflict exists, and the OWNER concurs with this information, the OWNER shall provide a letter of "no conflict" to the CONTRACTOR.
3. After award of the PROJECT, the CONTRACTOR will research any claimed compensable property interest for each OWNER claiming prior rights under section 3A and present the findings to the DEPARTMENT and OWNER for approval. The plans and estimate for the utility work shall be subject to approval of both the DEPARTMENT and the OWNER prior to construction. If the OWNER chooses to perform its own relocations and the OWNER holds no property interest as stated above; the OWNER shall confirm in writing that the OWNER will relocate its own facilities at no cost to the DEPARTMENT or the CONTRACTOR.
4. All construction engineering and contract supervision shall be the responsibility of the DEPARTMENT and the CONTRACTOR to ensure that all utility work included in the contract is accomplished in accordance with the PROJECT's plans and specifications. The CONTRACTOR will consult with the OWNER before authorizing any changes or deviations which affect the OWNER's facility.
5. For utility work included in the contract, the CONTRACTOR shall ensure that the design/construction and installation of the OWNER'S facilities is performed by a contractor/design consultant pre-approved/registered with both the DEPARTMENT and the OWNER. For any work included in the contract, excluding water and sewer, the OWNER will provide a list of pre-approved/registered contractors/design consultants on page 6 of the MOU.
6. For Utility work included in the contract, the OWNER or the OWNER's Consultant shall have the right to visit and inspect the work at any time and advise the CONTRACTOR and the DEPARTMENT'S Engineer of any observed discrepancies or potential issues. The DEPARTMENT agrees to notify the OWNER when all utility work is completed and ready for final inspection by the OWNER.
7. Upon Maintenance Acceptance or Final Acceptance of the utility work included in the contract and upon certification by the DEPARTMENT'S Engineer and the OWNER that the work has been completed in accordance with the plans and specifications, the OWNER will accept the adjusted, relocated, and additional facilities and will thereafter operate and maintain said facilities located within the PROJECT right of way subject to the DEPARTMENT'S Utility Accommodations Policy and Standards Manual (UAM), current edition" and any agreements in effect without further cost to the DEPARTMENT or its CONTRACTOR.
8. For the purpose of utility coordination, relocation and reimbursement matters, the OWNER shall cooperate with the CONTRACTOR in the same manner as if coordinating directly with the DEPARTMENT in accordance with the laws of the State of Georgia, the DEPARTMENT'S UAM and any agreements in effect between the DEPARTMENT and OWNER. The OWNER agrees to cooperate in good faith with the CONTRACTOR and to respond to all requests for information or meetings required to reach a resolution of any disputed items.
9. All Utility work included in the PROJECT's contract and Utility work completed by the OWNER that is reimbursed by the DEPARTMENT through an agreement shall be in accordance with the BUY AMERICA requirements of the Federal regulations (23 U.S.C. 313 and 23 CFR 635.410) all manufacturing processes for steel and iron products or predominantly of steel or iron (at least 90% steel or iron content) furnished for

permanent incorporation into the work on this project shall occur in the United States. The only exception to this requirement is the production of pig iron and the processing, pelletizing and reduction of iron ore, which may occur in another country. Other than there exceptions, all melting, rolling, extruding, machining, bending, grinding, drilling, coating, etc. must occur in the United States.

- a. Products of steel include, but are not limited to, such products as structural steel piles, reinforcing steel, structural plate, steel culverts, and guardrail steel supports for signs, signals and luminaires. Products of iron include, but are not limited to, such products as cast iron frames and grates and ductile iron pipe. Coatings include, but are not limited to, the applications of epoxy, galvanizing and paint. The coating material is not limited to this clause, only the application process.
- b. A Certificate of Compliance shall be furnished for steel and iron products as part of the backup information with the billing. The form for this certification entitled "Buy America Certificate of Compliance" is attached to this agreement as "Exhibit A." Records to be maintained by the Developer for this certification shall include a signed mill test report and a signed certification by each supplier, distributor, fabricator, and manufacturer that has handled the steel or iron product affirming that every process, including the application of a coating, performed on the steel or iron product has been carried out in the United States of America, except as allowed by this Section. The lack of these certifications will be justification for rejection of the steel and/or iron product or nonpayment of the work.
- c. The requirements of said law and regulations do not prevent the use of miscellaneous steel or iron components, subcomponents and hardware necessary to encase, assemble and construct the above products, manufactured products that are not predominantly steel or iron or a minimal use of foreign steel and iron materials if the cost of such materials used does not exceed one-tenth of one percent (0.1%) of the total contract price or \$2,500.00, whichever is greater.

The Memorandum of Understanding will be incorporated into the project contract by reference or Exhibit.

APPROVED FOR THE OWNER BY:

  
(Signature)

4/4/17  
(Date)

VP OPERATIONS

(Title)

APPROVED FOR THE DEPARTMENT BY:

  
(Signature)

4/13/17  
(Date)

STATE UTILITIES ADMINISTRATOR

### **Pre-Approved Contractor List**

Company Name: (See attached list)  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

**Please provide a minimum of three.**

### **Pre-Approved Design Consultant List**

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

Dear Road Contractor:

I am the Director of Construction Operations. I am responsible for acceptance/rejection of any gas pipeline that will be placed into service and tied to the gas pipeline system within Georgia or Tennessee. In order to facilitate such a decision, pipeline materials, connections and installation techniques must be inspected and/or tested for quality throughout the construction process. I utilize a large inspection staff of Project Coordinators and/or 3<sup>rd</sup> party contractors for that very purpose. It will be critical that you coordinate any construction activities so that my staff are notified in a timely manner to allow these quality inspections. Without them the pipeline cannot be accepted.

I have attached the current list of contractors allowed to perform gas facility relocations associated with road projects. **This list is proprietary and shall not be distributed to others.** Each contractor on the list has certain limitations to the work they may perform. These limitations may be self-imposed by the contractor, imposed by AGL or both.

Because this list is subject to change, it will be imperative that you seek my approval before awarding any work to the contractor. I recommend you send me an email of your intent to award the work. In that email, please specify the following:

- Gas Contractor (you intend on performing the work)
- Project Name, PI#, County
- Gas pipe length, system pressure, pipe size, pipe material (example...500' of 60 psig 4" plastic)
- Anticipated Start Date

I will promptly respond via email regarding the current acceptability of that contractor to perform that work for AGL.

*Brian Leavell*

Director, Construction Operations GA & TN  
Southern Company Gas  
10 Peachtree Place  
Atlanta, GA 30309  
Mobile 678.878.6682  
[bleavell@southernco.com](mailto:bleavell@southernco.com)

 Southern Company Gas

## Approved AGL Contractors - Contact List for GDOT Move In Contract Work

Note: The list below contains active and approved pipeline contractors that perform work for Atlanta Gas Light as of 3/21/17. Road Contractors should always reach out directly to Brian Leavelle (bleavelle@southemco.com) for the most current list of approved contractors.

| Limitations                   | First Name | Last Name | Company Name                        | City          | State   | Title                         | Work Phone   | WorkExt | Email Name   |
|-------------------------------|------------|-----------|-------------------------------------|---------------|---------|-------------------------------|--------------|---------|--|
| no steel pipe larger than 12" | Bryan      | Boyd      | Gunter Construction Company, Inc.   | Lawrenceville | Georgia | President                     | 770-963-7760 | 201     | bboyd@gunterconst.com  |
| no steel pipe larger than 6"  | Lamar      | Andrews   | CEDS Construction                   | Cumming       | Georgia | Supervisor                    | 770-889-2361 | 16      | landrews_ceds@bellsouth.net  |
|                               | Chad       | Roeback   |                                     | Cumming       | Georgia | Supervisor                    | 770-889-2361 | 16      | chadroeback_ceds@bellsouth.net   |
| no plastic pipe               | Dooley     | Eaves     | Troy Construction, LLC              | Commerce      | GA      | Vice President                | 706-336-0063 |         | deaves@TroyConstruction.com  |
|                               | Casey      | Colbev    |                                     | Commerce      | GA      | Estimating/Project Management | 706-336-0063 |         | ccolbev@TroyConstruction.com   |
| no steel pipe                 | Lance      | Souther   | O Lance Souther, Inc.               | Macon         | GA      | President                     | 478-742-2292 |         | lance@dlus.us  |
|                               | Edmund     | Zammit    |                                     | Macon         | GA      |                               | 478-742-2292 |         | edmund@dlus.us   |
| no projects outside NW GA     | SD         | Newman    | Hiwassee Construction Company, Inc. | Calhoun       | TN      | Owner                         | 423-421-3090 |         | Only available by cell. Email Todd at Hiwassee Construction address below when needed. |
|                               | Todd       | Newman    | Hiwassee Construction Company, Inc. | Calhoun       | TN      |                               | 423-667-0576 |         | toddn@hiwasseeconstruction.com   |
| no limitations                | Scott      | Bailey    | Benton-Georgia, LLC                 | Douglasville  | GA      | Estimator                     | 770-942-8180 | 0       | sbailey@benton-georgia.com   |
| no limitations                | Doug       | Greene    | Benton-Georgia, LLC                 | Douglasville  | GA      | VP Operations                 | 678-618-4695 | 0       | dgreene@benton-georgia.com   |
| no limitations                | Eric       | Bonner    | Benton-Georgia, LLC                 | Douglasville  | GA      | Estimator                     | 770-942-8180 | 0       | ebonner@benton-georgia.com   |
| no steel pipe                 | Eugene     | McCallie  | Hunter Utility                      | Birchwood     | TN      | Operations Manager            | 423-339-2104 |         | Hunterutility@aol.com  |
| no limitations                | Kevin      | Adams     | Southeast Connections               | Convers       | GA      | VP Operations                 | 404-659-1422 | 240     | kadamscscconnections.com   |
| no limitations                | Doug       | Suddeth   | Diversified Utility Services, Inc.  | Morrow        | GA      | President                     | 404-725-4712 |         | dsuddeth@dayvero.com   |
| no steel pipe larger than 12" | Jason      | Aldredge  | Diversified Utility Services, Inc.  | Morrow        | ga      | Operations Manager            | 678-618-4696 |         | jason.aldredge@duulic.com  |
| no steel pipe larger than 12" | Payton     | Crawford  | Pride Utility                       | Gainesville   | Georgia | Operation Manager             | 770-532-0085 |         | pcrawford@prideutility.com   |
| no steel pipe larger than 12" | Scott      | Case      | Pride Utility                       | Gainesville   | Georgia | Vice President/Sec            | 770-532-0085 |         | scase@prideutility.com   |
| no steel pipe larger than 12" | Tom        | Pridemore | Pride Utility                       | Gainesville   | Georgia | President                     | 770-532-0085 |         | tpridemore@prideutility.com  |
| no steel larger than 4"       | Walter     | Thomas    | Thomas Utility Contractors          | Augusta       | GA      | Pres.                         | 706-737-0042 |         | tuc@bellsouth.net  |
|                               | David      | Mize      |                                     | Augusta       | GA      | VP                            | 706-737-0042 |         | tuc@bellsouth.net  |
| no steel larger than 6"       | Tony       | Pittman   | Southern Pipeline, Inc              | Winder        | Georgia | Owner                         | 770-589-5184 |         | tpittman@southernpipeline.org  |
|                               | Johnny     | Phommaly  |                                     | Winder        | Georgia | Computer IT/Engineer          | 678-963-5676 |         | jphommaly@southernpipeline.org   |

[ccolbev@TroyConstruction.com](mailto:ccolbev@TroyConstruction.com)



# **Georgia Department of Transportation**

## **Technical Provisions**

### **For**

## **Design-Build Agreement**

### **P.I. No. 110610**

## **I-85 Widening**

### **Attachment 6-2**

## **AT&T Georgia MOU**

Georgia DOT Project: I-85 widening  
GDOT P.I. 0110610 & 0013545

## DESIGN-BUILD MEMORANDUM OF UNDERSTANDING

between the  
Georgia Department of Transportation (hereafter the DEPARTMENT)  
and  
BellSouth Telecommunications, LLC d/b/a AT&T Georgia (hereafter the OWNER)

---

Whereas GDOT, hereafter referred to as the DEPARTMENT proposes to undertake a design-build project hereafter referred to as PROJECT to as PROJECT # 110610 & 0013545 to Widen and reconstruct lanes in each direction from Hamilton Mill Road to SR 211 within Gwinnett and Barrow County, Georgia, and from SR 211 to UA 129 within Barrow and Jackson County, Georgia by contract through competitive bidding procedures; and,

Whereas the DEPARTMENT will accomplish the PROJECT through a Design Consultant, Design Consultant Team and/or Contractor, hereafter referred to as CONTRACTOR; and the utility owner hereafter referred to as the OWNER, and

Whereas, where OWNER has property rights ("Prior Rights") at the location of the PROJECT, OWNER will provide written evidence as to said prior rights within the area and will provide written documentation of prior rights relating to any individual crossing or Utility Facility, at the location of the PROJECT; and

Whereas, OWNER acknowledges that, generally, absent a showing of prior rights, the costs of relocation, protection, removal, or adjustment performed by OWNER shall be borne by OWNER; and

Whereas, pursuant to O.C.G.A. § 32-6-170(b), DEPARTMENT is authorized to pay or participate in the payment of the costs of relocation, protection, or adjustment of OWNER'S facilities where DEPARTMENT has made the determination that (i) such payments are in the best interest of the public and necessary in order to expedite the staging of the design-build project; and (ii) the costs of the removal, relocation, protection, or adjustment of such facilities are included as part of the Contract between the Department and the Department's roadway contractor for the design-build project; and

### 1. Type of Utility

OWNER has the following utility facilities which may need to be adjusted or relocated as a result of the proposed PROJECT:

Type of facility or facilities of OWNER:

- ☐ Domestic water mains and distribution lines and associated appurtenances
- ☐ Sanitary Sewer facilities and/or Storm Drainage System
- ☐ Electrical Distribution (overhead and underground) wires, poles, etc.
- ☐ Electrical Transmission (overhead and underground) wires, poles, etc.
- ☐ Natural Gas Distribution Facilities (underground)
- ☐ Natural Gas Transmission Facilities (underground)
- ☐ Petroleum Pipeline (underground)
- ☒ Telecommunications facilities and equipment
- ☐ Cable TV facilities
- ☐ Street Lighting
- ☐ Internet Data Service
- ☐ Other Facilities (Description) \_\_\_\_\_

## 2. New Utility Facilities Proposed (Betterment)

OWNER desires the following to be installed as new additional facilities within the PROJECT.  
Insert here or attach a detailed description of proposed new additional utility installations:

None

## 3. Assignment of Responsibilities for Design and Construction

This MEMORANDUM OF UNDERSTANDING and the following shall serve as a *basis* for assignment of responsibilities and costs for the DEPARTMENT, CONTRACTOR and the OWNER to enter into a Standard Utility Agreement (SUA) or Contract Item Agreement (CIA), if necessary, with OWNER once the PROJECT is awarded to the CONTRACTOR. For a PROJECT implementation, GDOT will not have in its possession exact costing plans to be utilized to determine exact locations of the removal, relocation, protection, or adjustment. However, Overhead/Subsurface Utility Engineering (SUE) investigations plans exist providing the best information and signifying the layout of known existing facilities. Please use these plans for developing the final determination of services as indicated below. The CONTRACTOR developed plans will be provided to the OWNER after the design build project is awarded by GDOT which shall be used by the CONTRACTOR as the final basis for the SUA or CIA. **Betterment costs will be the OWNER'S responsibility.**

**NOTE: Water and Sewer Design and Construction relocation work put in the contract will automatically be accomplished by the DEPARTMENT'S CONTRACTOR. The UTILITY OWNER will still have design approval authority. (No Pre-Approved Contractor/Consultant List required, leave page 6 blank). If you are a Water & Sewer Utility and choose to put your relocation Design and Construction in the contract, please check Design and Construction under Option 2 under 3B. Owner's electing to perform their own design, at their own cost, please select design under 3C.**

OWNER hereby intends to:

- 3A. OWNER, at the DEPARTMENT'S cost through an Agreement, will provide the following services for the properties for which it has established prior rights (Check to signify):

Design \_\_\_\_\_  
Construction \_\_\_\_\_

- 3B. OWNER, at the CONTRACTOR'S cost, for any removal, relocation, protection, adjustment and/or design (Regardless of Prior Rights) will allow their facilities to be placed into the DEPARTMENT'S contract for the following services pursuant to O.C.G.A. § 32-6-170(b). The CONTRACTOR will add the removal, relocation, protection, materials, adjustment and/or design cost, excluding betterment, to the overall PROJECT's cost. (Check to signify):

**Option 1: OWNER wants the work to be performed by the OWNER's pre-approved Design Consultants and/or Contractors.**

Design       X  
Construction X

**Option 2: OWNER wants the DEPARTMENT'S CONTRACTOR to perform the design and/or construction. (Check to signify):**

Design       \_\_\_\_\_  
Construction \_\_\_\_\_

**If both are checked, please leave page 6 blank.**

As per this section, all work necessary for the removal, relocation, protection, or adjustment of the described utilities in accordance with the plans when approved shall be included in the project contract and accomplished by the CONTRACTOR except as follows (Check none or list any work items to be performed by the OWNER)

None \_\_\_\_\_

Excluded Items \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Comments: While the DB Contractor will be able to perform much of the design and construction, only AT&T union personnel can pull cable/fiber, perform splicing/tie-in work, some technical design work and do pole attachments (AT&T will be responsible these cost). The DB Contractor can install any required ducts, poles and vaults/manholes/handholes, enclosures and bridge attachments and will be responsible for the cost of the design and construction (including materials). In the MOU, AT&T has selected design and construction under 3b, option 1. AT&T has also selected 3c design and construction. AT&T will be responsible for some cost as indicated above and the DB Contractor will be responsible for the remaining cost.

- 3C. OWNER, at OWNER'S cost, will provide the following services (Check to signify):

Design       X  
Construction X

**The following is hereby mutually agreed to and understood by both parties:**

1. The identification of existing facilities including preparation of Overhead/Subsurface Utility Engineering (SUE) investigations plans will be accomplished by the DEPARTMENT prior to award of the PROJECT and thereafter supplemented by the CONTRACTOR.
2. The CONTRACTOR shall coordinate reviews of the utility relocation information and obtain acceptance from the OWNER and DEPARTMENT when required. However; the OWNER shall apply for and obtain any required permits from the DEPARTMENT and perform any final design or proprietary design needed to administer its own relocation work if the work will not be included in the contract. If the preliminary plans indicate that no conflict exists, and the OWNER concurs with this information, the OWNER shall provide a letter of "no conflict" to the CONTRACTOR.
3. After award of the PROJECT, the CONTRACTOR will research any claimed compensable property interest for each OWNER claiming prior rights under section 3A and present the findings to the DEPARTMENT and OWNER for approval. The plans and estimate for the utility work shall be subject to approval of both the DEPARTMENT and the OWNER prior to construction. If the OWNER chooses to perform its own relocations and the OWNER holds no property interest as stated above; the OWNER shall confirm in writing that the OWNER will relocate its own facilities at no cost to the DEPARTMENT or the CONTRACTOR.
4. All construction engineering and contract supervision shall be the responsibility of the DEPARTMENT and the CONTRACTOR to ensure that all utility work included in the contract is accomplished in accordance with the PROJECT's plans and specifications. The CONTRACTOR will consult with the OWNER before authorizing any changes or deviations which affect the OWNER's facility.
5. For utility work included in the contract, the CONTRACTOR shall ensure that the design/construction and installation of the OWNER'S facilities is performed by a contractor/design consultant pre-approved/registered with both the DEPARTMENT and the OWNER. For any work included in the contract, excluding water and sewer, the OWNER will provide a list of pre-approved/registered contractors/design consultants on page 6 of the MOU.
6. For Utility work included in the contract, the OWNER or the OWNER's Consultant shall have the right to visit and inspect the work at any time and advise the CONTRACTOR and the DEPARTMENT'S Engineer of any observed discrepancies or potential issues. The DEPARTMENT agrees to notify the OWNER when all utility work is completed and ready for final inspection by the OWNER.
7. Upon Maintenance Acceptance or Final Acceptance of the utility work included in the contract and upon certification by the DEPARTMENT'S Engineer and the OWNER that the work has been completed in accordance with the plans and specifications, the OWNER will accept the adjusted, relocated, and additional facilities and will thereafter operate and maintain said facilities located within the PROJECT right of way subject to the DEPARTMENT'S Utility Accommodations Policy and Standards Manual (UAM), current edition" and any agreements in effect without further cost to the DEPARTMENT or its CONTRACTOR.
8. For the purpose of utility coordination, relocation and reimbursement matters, the OWNER shall cooperate with the CONTRACTOR in the same manner as if coordinating directly with the DEPARTMENT in accordance with the laws of the State of Georgia, the DEPARTMENT'S UAM and any agreements in effect between the DEPARTMENT and OWNER. The OWNER agrees to cooperate in good faith with the CONTRACTOR and to respond to all requests for information or meetings required to reach a resolution of any disputed items.
9. All Utility work included in the PROJECT's contract and Utility work completed by the OWNER that is reimbursed by the DEPARTMENT through an agreement shall be in accordance with the BUY AMERICA requirements of the Federal regulations (23 U.S.C. 313 and 23 CFR 635.410) all manufacturing processes for steel and iron products or predominantly of steel or iron (at least 90% steel or iron content) furnished for permanent incorporation into the work on this project shall occur in the United States. The only exception to

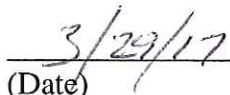
this requirement is the production of pig iron and the processing, pelletizing and reduction of iron ore, which may occur in another country. Other than there exceptions, all melting, rolling, extruding, machining, bending, grinding, drilling, coating, etc. must occur in the United States.

- a. Products of steel include, but are not limited to, such products as structural steel piles, reinforcing steel, structural plate, steel culverts, and guardrail steel supports for signs, signals and luminaires. Products of iron include, but are not limited to, such products as cast iron frames and grates and ductile iron pipe. Coatings include, but are not limited to, the applications of epoxy, galvanizing and paint. The coating material is not limited to this clause, only the application process.
- b. A Certificate of Compliance shall be furnished for steel and iron products as part of the backup information with the billing. The form for this certification entitled "Buy America Certificate of Compliance" is attached to this agreement as "Exhibit A." Records to be maintained by the Developer for this certification shall include a signed mill test report and a signed certification by each supplier, distributor, fabricator, and manufacturer that has handled the steel or iron product affirming that every process, including the application of a coating, performed on the steel or iron product has been carried out in the United States of America, except as allowed by this Section. The lack of these certifications will be justification for rejection of the steel and/or iron product or nonpayment of the work.
- c. The requirements of said law and regulations do not prevent the use of miscellaneous steel or iron components, subcomponents and hardware necessary to encase, assemble and construct the above products, manufactured products that are not predominantly steel or iron or a minimal use of foreign steel and iron materials if the cost of such materials used does not exceed one-tenth of one percent (0.1%) of the total contract price or \$2,500.00, whichever is greater.

The Memorandum of Understanding will be incorporated into the project contract by reference or Exhibit.

APPROVED FOR THE OWNER BY:


  
(Signature)


  
(Date)

MGR-OSP PLNG & ENGRG DESIGN

(Title)

APPROVED FOR THE DEPARTMENT BY:

  
(Signature)

  
(Date)

STATE UTILITIES ADMINISTRATOR

### **Pre-Approved Contractor List**

Company Name: ANSCO & ASSOC.  
Address: 736 PARK NORTH BLVD. CLARKSTON, GA 30021  
Phone: 404-508-5700  
Contact Person: GEORGE SUMMERS  
E-Mail: george.summers@anscollc.com

Company Name: MIKE BLACKBURN  
Address: 320 WAKE ROBIN DR. SUNSET, SC 29685  
Phone: 864-380-6479  
Contact Person: MIKE BLACKBURN  
E-Mail:

Company Name: MARIE SMITH DBA SMITH CO  
Address:  
Phone: 706-201-8363  
Contact Person: JOE SMITH  
E-Mail: jhsmith3209@bellsouth.net

**Please provide a minimum of three.**

### **Pre-Approved Design Consultant List**

Company Name: TRC SOLUTIONS  
Address: 6095 PROFESSIONAL PKWY SUITE 102-B DOUGLASVILLE, GA 30134  
Phone: 770-544-0232  
Contact Person: DAVID JESSEN  
E-Mail: DJessen@trcsolutions.com

Company Name: BYERS ENGINEERING COMPANY  
Address: 6285 BARFIELD RD ATLANTA, GA 30328  
Phone:  
Contact Person: TERESA CARSON  
E-Mail: Teresa.Carson@byers.com

Company Name: SOURCEONE CORP.  
Address: 1012 COGGINS PLACE MARIETTA, GA 30060  
Phone: 678-594-5100 EXT #102  
Contact Person: BEN BLANTON  
E-Mail: bblanton@sourceonecorp.com



# **Georgia Department of Transportation**

## **Technical Provisions**

### **For**

## **Design-Build Agreement**

### **P.I. No. 110610**

## **I-85 Widening**

### **Attachment 6-3**

## **City of Braselton MOU**

Georgia DOT Project: I-85 Widening  
GDOT P.I. # 110610 & 0013545

**DESIGN-BUILD**  
**MEMORANDUM OF UNDERSTANDING**  
between the  
Georgia Department of Transportation (hereafter the DEPARTMENT)  
and  
Town of Braselton (hereafter the OWNER)

---

Whereas GDOT, hereafter referred to as the DEPARTMENT proposes to undertake a design-build project hereafter referred to as PROJECT # 110610 & 0013545 to Widen and reconstruct lanes in each direction from Hamilton Mill Road to SR 211 within Gwinnett and Barrow County, Georgia and from SR 211 to US 129 within Barrow and Jackson County, Georgia by contract through competitive bidding procedures; and,

Whereas the DEPARTMENT will accomplish the PROJECT through a Design Consultant, Design Consultant Team and/or Contractor, hereafter referred to as CONTRACTOR; and the utility owner hereafter referred to as the OWNER, and

Whereas, where OWNER has property rights ("Prior Rights") at the location of the PROJECT, OWNER will provide written evidence as to said prior rights within the area and will provide written documentation of prior rights relating to any individual crossing or Utility Facility, at the location of the PROJECT; and

Whereas, OWNER acknowledges that, generally, absent a showing of prior rights, the costs of relocation, protection, removal, or adjustment performed by OWNER shall be borne by OWNER; and

Whereas, pursuant to O.C.G.A. § 32-6-170(b), DEPARTMENT is authorized to pay or participate in the payment of the costs of relocation, protection, or adjustment of OWNER'S facilities where DEPARTMENT has made the determination that (i) such payments are in the best interest of the public and necessary in order to expedite the staging of the design-build project; and (ii) the costs of the removal, relocation, protection, or adjustment of such facilities are included as part of the Contract between the Department and the Department's roadway contractor for the design-build project; and

**1. Type of Utility**

OWNER has the following utility facilities which may need to be adjusted or relocated as a result of the proposed PROJECT:

Type of facility or facilities of OWNER:

- ☒ Domestic water mains and distribution lines and associated appurtenances
- ☒ Sanitary Sewer facilities and/or Storm Drainage System
- ☐ Electrical Distribution (overhead and underground) wires, poles, etc.
- ☐ Electrical Transmission (overhead and underground) wires, poles, etc.
- ☐ Natural Gas Distribution Facilities (underground)
- ☐ Natural Gas Transmission Facilities (underground)
- ☐ Petroleum Pipeline (underground)
- ☐ Telecommunications facilities and equipment
- ☐ Cable TV facilities
- ☐ Street Lighting
- ☐ Internet Data Service

\_\_\_\_\_ Other Facilities (Description) \_\_\_\_\_

## 2. New Utility Facilities Proposed (Betterment)

OWNER desires the following to be installed as new additional facilities within the PROJECT.  
Insert here or attach a detailed description of proposed new additional utility installations:

\_\_\_\_\_

\_\_\_\_\_

## 3. Assignment of Responsibilities for Design and Construction

This MEMORANDUM OF UNDERSTANDING and the following shall serve as a *basis* for assignment of responsibilities and costs for the DEPARTMENT, CONTRACTOR and the OWNER to enter into a Standard Utility Agreement (SUA) or Contract Item Agreement (CIA), if necessary, with OWNER once the PROJECT is awarded to the CONTRACTOR. For a PROJECT implementation, GDOT will not have in its possession exact costing plans to be utilized to determine exact locations of the removal, relocation, protection, or adjustment. However, Overhead/Subsurface Utility Engineering (SUE) investigations plans exist providing the best information and signifying the layout of known existing facilities. Please use these plans for developing the final determination of services as indicated below. The CONTRACTOR developed plans will be provided to the OWNER after the design build project is awarded by GDOT which shall be used by the CONTRACTOR as the final basis for the SUA or CIA. **Betterment costs will be the OWNER'S responsibility.**

**NOTE: Water and Sewer Design and Construction relocation work put in the contract will automatically be accomplished by the DEPARTMENT'S CONTRACTOR. The UTILITY OWNER will still have design approval authority. (No Pre-Approved Contractor/Consultant List required, leave page 6 blank). If you are a Water & Sewer Utility and choose to put your relocation Design and Construction in the contract, please check Design and Construction under Option 2 under 3B. Owner's electing to perform their own design, at their own cost, please select design under 3C.**

OWNER hereby intends to:

- 3A. OWNER, at the DEPARTMENT'S cost through an Agreement, will provide the following services for the properties for which it has established prior rights (Check to signify):

Design \_\_\_\_\_  
Construction \_\_\_\_\_

- 3B. OWNER, at the CONTRACTOR'S cost, for any removal, relocation, protection, adjustment and/or design (Regardless of Prior Rights) will allow their facilities to be placed into the DEPARTMENT'S contract for the following services pursuant to O.C.G.A. § 32-6-170(b). The CONTRACTOR will add the removal, relocation, protection, materials, adjustment and/or design cost, excluding betterment, to the overall PROJECT's cost. (Check to signify):

**Option 1: OWNER wants the work to be performed by the OWNER's pre-approved Design Consultants and/or Contractors.**

Design \_\_\_\_\_  
Construction \_\_\_\_\_

**Option 2: OWNER wants the DEPARTMENT'S CONTRACTOR to perform the design and/or construction. (Check to signify):**

Design ☒  
Construction ☒

**If both are checked, please leave page 6 blank.**

As per this section, all work necessary for the removal, relocation, protection, or adjustment of the described utilities in accordance with the plans when approved shall be included in the project contract and accomplished by the CONTRACTOR except as follows (Check none or list any work items to be performed by the OWNER)

None \_\_\_\_\_

Excluded Items \_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- 3C. OWNER, at OWNER'S cost, will provide the following services (Check to signify):

Design \_\_\_\_\_  
Construction \_\_\_\_\_

**The following is hereby mutually agreed to and understood by both parties:**

1. The identification of existing facilities including preparation of Overhead/Subsurface Utility Engineering (SUE) investigations plans will be accomplished by the DEPARTMENT prior to award of the PROJECT and thereafter supplemented by the CONTRACTOR.
2. The CONTRACTOR shall coordinate reviews of the utility relocation information and obtain acceptance from the OWNER and DEPARTMENT when required. However; the OWNER shall apply for and obtain any required permits from the DEPARTMENT and perform any final design or proprietary design needed to administer its own relocation work if the work will not be included in the contract. If the preliminary plans indicate that no conflict exists, and the OWNER concurs with this information, the OWNER shall provide a letter of "no conflict" to the CONTRACTOR.
3. After award of the PROJECT, the CONTRACTOR will research any claimed compensable property interest for each OWNER claiming prior rights under section 3A and present the findings to the DEPARTMENT and OWNER for approval. The plans and estimate for the utility work shall be subject to approval of both the DEPARTMENT and the OWNER prior to construction. If the OWNER chooses to perform its own relocations and the OWNER holds no property interest as stated above; the OWNER shall confirm in writing that the OWNER will relocate its own facilities at no cost to the DEPARTMENT or the CONTRACTOR.
4. All construction engineering and contract supervision shall be the responsibility of the DEPARTMENT and the CONTRACTOR to ensure that all utility work included in the contract is accomplished in accordance with the PROJECT's plans and specifications. The CONTRACTOR will consult with the OWNER before authorizing any changes or deviations which affect the OWNER's facility.
5. For utility work included in the contract, the CONTRACTOR shall ensure that the design/construction and installation of the OWNER'S facilities is performed by a contractor/design consultant pre-approved/registered with both the DEPARTMENT and the OWNER. For any work included in the contract, excluding water and sewer, the OWNER will provide a list of pre-approved/registered contractors/design consultants on page 6 of the MOU.
6. For Utility work included in the contract, the OWNER or the OWNER's Consultant shall have the right to visit and inspect the work at any time and advise the CONTRACTOR and the DEPARTMENT'S Engineer of any observed discrepancies or potential issues. The DEPARTMENT agrees to notify the OWNER when all utility work is completed and ready for final inspection by the OWNER.
7. Upon Maintenance Acceptance or Final Acceptance of the utility work included in the contract and upon certification by the DEPARTMENT'S Engineer and the OWNER that the work has been completed in accordance with the plans and specifications, the OWNER will accept the adjusted, relocated, and additional facilities and will thereafter operate and maintain said facilities located within the PROJECT right of way subject to the DEPARTMENT'S Utility Accommodations Policy and Standards Manual (UAM), current edition" and any agreements in effect without further cost to the DEPARTMENT or its CONTRACTOR.
8. For the purpose of utility coordination, relocation and reimbursement matters, the OWNER shall cooperate with the CONTRACTOR in the same manner as if coordinating directly with the DEPARTMENT in accordance with the laws of the State of Georgia, the DEPARTMENT'S UAM and any agreements in effect between the DEPARTMENT and OWNER. The OWNER agrees to cooperate in good faith with the CONTRACTOR and to respond to all requests for information or meetings required to reach a resolution of any disputed items.
9. All Utility work included in the PROJECT's contract and Utility work completed by the OWNER that is reimbursed by the DEPARTMENT through an agreement shall be in accordance with the BUY AMERICA requirements of the Federal regulations (23 U.S.C. 313 and 23 CFR 635.410) all manufacturing processes for

steel and iron products or predominantly of steel or iron (at least 90% steel or iron content) furnished for permanent incorporation into the work on this project shall occur in the United States. The only exception to this requirement is the production of pig iron and the processing, pelletizing and reduction of iron ore, which may occur in another country. Other than there exceptions, all melting, rolling, extruding, machining, bending, grinding, drilling, coating, etc. must occur in the United States.

- a. Products of steel include, but are not limited to, such products as structural steel piles, reinforcing steel, structural plate, steel culverts, and guardrail steel supports for signs, signals and luminaires. Products of iron include, but are not limited to, such products as cast iron frames and grates and ductile iron pipe. Coatings include, but are not limited to, the applications of epoxy, galvanizing and paint. The coating material is not limited to this clause, only the application process.
- b. A Certificate of Compliance shall be furnished for steel and iron products as part of the backup information with the billing. The form for this certification entitled "Buy America Certificate of Compliance" is attached to this agreement as "Exhibit A." Records to be maintained by the Developer for this certification shall include a signed mill test report and a signed certification by each supplier, distributor, fabricator, and manufacturer that has handled the steel or iron product affirming that every process, including the application of a coating, performed on the steel or iron product has been carried out in the United States of America, except as allowed by this Section. The lack of these certifications will be justification for rejection of the steel and/or iron product or nonpayment of the work.
- c. The requirements of said law and regulations do not prevent the use of miscellaneous steel or iron components, subcomponents and hardware necessary to encase, assemble and construct the above products, manufactured products that are not predominantly steel or iron or a minimal use of foreign steel and iron materials if the cost of such materials used does not exceed one-tenth of one percent (0.1%) of the total contract price or \$2,500.00, whichever is greater.

The Memorandum of Understanding will be incorporated into the project contract by reference or Exhibit.

APPROVED FOR THE OWNER BY:

(Signature)

(Date)

(Title)

APPROVED FOR THE DEPARTMENT BY:

(Signature)

(Date)

STATE UTILITIES ADMINISTRATOR

### **Pre-Approved Contractor List**

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

**Please provide a minimum of three.**

### **Pre-Approved Design Consultant List**

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:



# **Georgia Department of Transportation**

## **Technical Provisions**

### **For**

## **Design-Build Agreement**

### **P.I. No. 110610**

## **I-85 Widening**

### **Attachment 6-4**

## **City of Buford MOU**

Georgia DOT Project: I-85 widening  
GDOT P.I. 0110610 & 0013545

## DESIGN-BUILD MEMORANDUM OF UNDERSTANDING

between the  
Georgia Department of Transportation (hereafter the DEPARTMENT)  
and  
City of Buford (hereafter the OWNER)

Whereas GDOT, hereafter referred to as the DEPARTMENT proposes to undertake a design-build project hereafter referred to as PROJECT to as PROJECT # 110610 & 0013545 to Widen and reconstruct lanes in each direction from Hamilton Mill Road to SR 211 within Gwinnett and Barrow County, Georgia, and from SR 211 to UA 129 within Barrow and Jackson County, Georgia by contract through competitive bidding procedures; and,

Whereas the DEPARTMENT will accomplish the PROJECT through a Design Consultant, Design Consultant Team and/or Contractor, hereafter referred to as CONTRACTOR; and the utility owner hereafter referred to as the OWNER, and

Whereas, where OWNER has property rights ("Prior Rights") at the location of the PROJECT, OWNER will provide written evidence as to said prior rights within the area and will provide written documentation of prior rights relating to any individual crossing or Utility Facility, at the location of the PROJECT; and

Whereas, OWNER acknowledges that, generally, absent a showing of prior rights, the costs of relocation, protection, removal, or adjustment performed by OWNER shall be borne by OWNER; and

Whereas, pursuant to O.C.G.A. § 32-6-170(b), DEPARTMENT is authorized to pay or participate in the payment of the costs of relocation, protection, or adjustment of OWNER'S facilities where DEPARTMENT has made the determination that (i) such payments are in the best interest of the public and necessary in order to expedite the staging of the design-build project; and (ii) the costs of the removal, relocation, protection, or adjustment of such facilities are included as part of the Contract between the Department and the Department's roadway contractor for the design-build project; and

### 1. Type of Utility

OWNER has the following utility facilities which may need to be adjusted or relocated as a result of the proposed PROJECT:

#### Type of facility or facilities of OWNER:

- ☐ Domestic water mains and distribution lines and associated appurtenances
- ☐ Sanitary Sewer facilities and/or Storm Drainage System
- ☐ Electrical Distribution (overhead and underground) wires, poles, etc.
- ☐ Electrical Transmission (overhead and underground) wires, poles, etc.
- ☒ Natural Gas Distribution Facilities (underground)
- ☐ Natural Gas Transmission Facilities (underground)
- ☐ Petroleum Pipeline (underground)
- ☐ Telecommunications facilities and equipment
- ☐ Cable TV facilities
- ☐ Street Lighting
- ☐ Internet Data Service
- ☐ Other Facilities (Description) \_\_\_\_\_

*AK*

## 2. New Utility Facilities Proposed (Betterment)

OWNER desires the following to be installed as new additional facilities within the PROJECT.  
Insert here or attach a detailed description of proposed new additional utility installations:

---

---

## 3. Assignment of Responsibilities for Design and Construction

This MEMORANDUM OF UNDERSTANDING and the following shall serve as a *basis* for assignment of responsibilities and costs for the DEPARTMENT, CONTRACTOR and the OWNER to enter into a Standard Utility Agreement (SUA) or Contract Item Agreement (CIA), if necessary, with OWNER once the PROJECT is awarded to the CONTRACTOR. For a PROJECT implementation, GDOT will not have in its possession exact costing plans to be utilized to determine exact locations of the removal, relocation, protection, or adjustment. However, Overhead/Subsurface Utility Engineering (SUE) investigations plans exist providing the best information and signifying the layout of known existing facilities. Please use these plans for developing the final determination of services as indicated below. The CONTRACTOR developed plans will be provided to the OWNER after the design build project is awarded by GDOT which shall be used by the CONTRACTOR as the final basis for the SUA or CIA. **Betterment costs will be the OWNER'S responsibility.**

**NOTE: Water and Sewer Design and Construction relocation work put in the contract will automatically be accomplished by the DEPARTMENT'S CONTRACTOR. The UTILITY OWNER will still have design approval authority. (No Pre-Approved Contractor/Consultant List required, leave page 6 blank). If you are a Water & Sewer Utility and choose to put your relocation Design and Construction in the contract, please check Design and Construction under Option 2 under 3B. Owner's electing to perform their own design, at their own cost, please select design under 3C.**

OWNER hereby intends to:

- 3A. OWNER, at the DEPARTMENT'S cost through an Agreement, will provide the following services for the properties for which it has established prior rights (Check to signify):

Design \_\_\_\_\_  
Construction \_\_\_\_\_

BBK

- 3B. OWNER, at the CONTRACTOR'S cost, for any removal, relocation, protection, adjustment and/or design (Regardless of Prior Rights) will allow their facilities to be placed into the DEPARTMENT'S contract for the following services pursuant to O.C.G.A. § 32-6-170(b). The CONTRACTOR will add the removal, relocation, protection, materials, adjustment and/or design cost, excluding betterment, to the overall PROJECT's cost. (Check to signify):

**Option 1: OWNER wants the work to be performed by the OWNER's pre-approved Design Consultants and/or Contractors.**

Design \_\_\_\_\_  
Construction   X  

**Option 2: OWNER wants the DEPARTMENT'S CONTRACTOR to perform the design and/or construction. (Check to signify):**

Design \_\_\_\_\_  
Construction \_\_\_\_\_ **If both are checked, please leave page 6 blank.**

As per this section, all work necessary for the removal, relocation, protection, or adjustment of the described utilities in accordance with the plans when approved shall be included in the project contract and accomplished by the CONTRACTOR except as follows (Check none or list any work items to be performed by the OWNER)

None   X  

Excluded Items \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- 3C. OWNER, at OWNER'S cost, will provide the following services (Check to signify):

Design   X    
Construction \_\_\_\_\_

**The following is hereby mutually agreed to and understood by both parties:**

1. The identification of existing facilities including preparation of Overhead/Subsurface Utility Engineering (SUE) investigations plans will be accomplished by the DEPARTMENT prior to award of the PROJECT and thereafter supplemented by the CONTRACTOR.
2. The CONTRACTOR shall coordinate reviews of the utility relocation information and obtain acceptance from the OWNER and DEPARTMENT when required. However; the OWNER shall apply for and obtain any required permits from the DEPARTMENT and perform any final design or proprietary design needed to administer its own relocation work if the work will not be included in the contract. If the preliminary plans indicate that no conflict exists, and the OWNER concurs with this information, the OWNER shall provide a letter of "no conflict" to the CONTRACTOR.
3. After award of the PROJECT, the CONTRACTOR will research any claimed compensable property interest for each OWNER claiming prior rights under section 3A and present the findings to the DEPARTMENT and OWNER for approval. The plans and estimate for the utility work shall be subject to approval of both the DEPARTMENT and the OWNER prior to construction. If the OWNER chooses to perform its own relocations and the OWNER holds no property interest as stated above; the OWNER shall confirm in writing that the OWNER will relocate its own facilities at no cost to the DEPARTMENT or the CONTRACTOR.
4. All construction engineering and contract supervision shall be the responsibility of the DEPARTMENT and the CONTRACTOR to ensure that all utility work included in the contract is accomplished in accordance with the PROJECT's plans and specifications. The CONTRACTOR will consult with the OWNER before authorizing any changes or deviations which affect the OWNER's facility.
5. For utility work included in the contract, the CONTRACTOR shall ensure that the design/construction and installation of the OWNER'S facilities is performed by a contractor/design consultant pre-approved/registered with both the DEPARTMENT and the OWNER. For any work included in the contract, excluding water and sewer, the OWNER will provide a list of pre-approved/registered contractors/design consultants on page 6 of the MOU.
6. For Utility work included in the contract, the OWNER or the OWNER's Consultant shall have the right to visit and inspect the work at any time and advise the CONTRACTOR and the DEPARTMENT'S Engineer of any observed discrepancies or potential issues. The DEPARTMENT agrees to notify the OWNER when all utility work is completed and ready for final inspection by the OWNER.
7. Upon Maintenance Acceptance or Final Acceptance of the utility work included in the contract and upon certification by the DEPARTMENT'S Engineer and the OWNER that the work has been completed in accordance with the plans and specifications, the OWNER will accept the adjusted, relocated, and additional facilities and will thereafter operate and maintain said facilities located within the PROJECT right of way subject to the DEPARTMENT'S Utility Accommodations Policy and Standards Manual (UAM), current edition" and any agreements in effect without further cost to the DEPARTMENT or its CONTRACTOR.
8. For the purpose of utility coordination, relocation and reimbursement matters, the OWNER shall cooperate with the CONTRACTOR in the same manner as if coordinating directly with the DEPARTMENT in accordance with the laws of the State of Georgia, the DEPARTMENT'S UAM and any agreements in effect between the DEPARTMENT and OWNER. The OWNER agrees to cooperate in good faith with the CONTRACTOR and to respond to all requests for information or meetings required to reach a resolution of any disputed items.
9. All Utility work included in the PROJECT's contract and Utility work completed by the OWNER that is reimbursed by the DEPARTMENT through an agreement shall be in accordance with the BUY AMERICA requirements of the Federal regulations (23 U.S.C. 313 and 23 CFR 635.410) all manufacturing processes for steel and iron products or predominantly of steel or iron (at least 90% steel or iron content) furnished for

permanent incorporation into the work on this project shall occur in the United States. The only exception to this requirement is the production of pig iron and the processing, pelletizing and reduction of iron ore, which may occur in another country. Other than these exceptions, all melting, rolling, extruding, machining, bending, grinding, drilling, coating, etc. must occur in the United States.

- a. Products of steel include, but are not limited to, such products as structural steel piles, reinforcing steel, structural plate, steel culverts, and guardrail steel supports for signs, signals and luminaires. Products of iron include, but are not limited to, such products as cast iron frames and grates and ductile iron pipe. Coatings include, but are not limited to, the applications of epoxy, galvanizing and paint. The coating material is not limited to this clause, only the application process.
- b. A Certificate of Compliance shall be furnished for steel and iron products as part of the backup information with the billing. The form for this certification entitled "Buy America Certificate of Compliance" is attached to this agreement as "Exhibit A." Records to be maintained by the Developer for this certification shall include a signed mill test report and a signed certification by each supplier, distributor, fabricator, and manufacturer that has handled the steel or iron product affirming that every process, including the application of a coating, performed on the steel or iron product has been carried out in the United States of America, except as allowed by this Section. The lack of these certifications will be justification for rejection of the steel and/or iron product or nonpayment of the work.
- c. The requirements of said law and regulations do not prevent the use of miscellaneous steel or iron components, subcomponents and hardware necessary to encase, assemble and construct the above products, manufactured products that are not predominantly steel or iron or a minimal use of foreign steel and iron materials if the cost of such materials used does not exceed one-tenth of one percent (0.1%) of the total contract price or \$2,500.00, whichever is greater.

The Memorandum of Understanding will be incorporated into the project contract by reference or Exhibit.

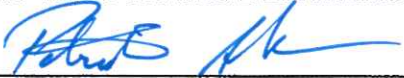
APPROVED FOR THE OWNER BY:

  
(Signature)

3-30-17  
(Date)

City Manager  
(Title)

APPROVED FOR THE DEPARTMENT BY:

  
(Signature)

4/13/17  
(Date)

STATE UTILITIES ADMINISTRATOR

**Pre-Approved Contractor List**

Company Name: C.E.D.S. Construction Co. Inc.  
Address: P.O. Box 97, Cumming, Georgia 30028  
Phone: 770.889.2361  
Contact Person: Chad Roebuck  
E-Mail: croebuck1\_ceds@bellsouth.net

Company Name: Harrison & Harrison, Inc.  
Address: 102 Newton Bridge Industrial Way, Athens, Georgia 30607  
Phone: 706.549.2555  
Contact Person: Jamey Harrison  
E-Mail: jameyhh@bellsouth.net

Company Name: Pride Utility Construction Co.  
Address: 1576 Candler Road, Gainesville, Georgia 30507  
Phone: 770.532.0085  
Contact Person: Scott Taylor  
E-Mail: staylor@prideutility.com

Company Name: Southeast Connection, LLC  
Address: 2720 Dogwood Drive SE, Conyers, Georgia 30013  
Phone: 404.659.1422  
Contact Person: Josh Evans  
E-Mail: josh@seconnections.com

Company Name: Southern Pipeline, Inc.  
Address: 1243 Casey Road, Winder, Georgia 30680  
Phone: 678.414.7491  
Contact Person: Tony Pittman  
E-Mail: tpittman@southernpipeline.org

**Please provide a minimum of three.**

**Pre-Approved Design Consultant List**

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

*BAU*



# **Georgia Department of Transportation**

## **Technical Provisions**

### **For**

## **Design-Build Agreement**

### **P.I. No. 110610**

## **I-85 Widening**

### **Attachment 6-5**

## **Comcast Cable MOU**

Georgia DOT Project: I-85 widening  
GDOT P.I. 0110610 & 0013545

## DESIGN-BUILD MEMORANDUM OF UNDERSTANDING

between the  
Georgia Department of Transportation (hereafter the DEPARTMENT)  
and  
Comcast Cable (hereafter the OWNER)

---

Whereas GDOT, hereafter referred to as the DEPARTMENT proposes to undertake a design-build project hereafter referred to as PROJECT to as PROJECT # 110610 & 0013545 to Widen and reconstruct lanes in each direction from Hamilton Mill Road to SR 211 within Gwinnett and Barrow County, Georgia, and from SR 211 to UA 129 within Barrow and Jackson County, Georgia by contract through competitive bidding procedures; and,

Whereas the DEPARTMENT will accomplish the PROJECT through a Design Consultant, Design Consultant Team and/or Contractor, hereafter referred to as CONTRACTOR; and the utility owner hereafter referred to as the OWNER, and

Whereas, where OWNER has property rights ("Prior Rights") at the location of the PROJECT, OWNER will provide written evidence as to said prior rights within the area and will provide written documentation of prior rights relating to any individual crossing or Utility Facility, at the location of the PROJECT; and

Whereas, OWNER acknowledges that, generally, absent a showing of prior rights, the costs of relocation, protection, removal, or adjustment performed by OWNER shall be borne by OWNER; and

Whereas, pursuant to O.C.G.A. § 32-6-170(b), DEPARTMENT is authorized to pay or participate in the payment of the costs of relocation, protection, or adjustment of OWNER'S facilities where DEPARTMENT has made the determination that (i) such payments are in the best interest of the public and necessary in order to expedite the staging of the design-build project; and (ii) the costs of the removal, relocation, protection, or adjustment of such facilities are included as part of the Contract between the Department and the Department's roadway contractor for the design-build project; and

### 1. Type of Utility

OWNER has the following utility facilities which may need to be adjusted or relocated as a result of the proposed PROJECT:

Type of facility or facilities of OWNER:

- ☐ Domestic water mains and distribution lines and associated appurtenances
- ☐ Sanitary Sewer facilities and/or Storm Drainage System
- ☐ Electrical Distribution (overhead and underground) wires, poles, etc.
- ☐ Electrical Transmission (overhead and underground) wires, poles, etc.
- ☐ Natural Gas Distribution Facilities (underground)
- ☐ Natural Gas Transmission Facilities (underground)
- ☐ Petroleum Pipeline (underground)
- ☐ Telecommunications facilities and equipment
- ☒ Cable TV facilities
- ☐ Street Lighting
- ☐ Internet Data Service
- ☐ Other Facilities (Description) \_\_\_\_\_

## 2. New Utility Facilities Proposed (Betterment)

OWNER desires the following to be installed as new additional facilities within the PROJECT.  
Insert here or attach a detailed description of proposed new additional utility installations:

NONE

## 3. Assignment of Responsibilities for Design and Construction

This MEMORANDUM OF UNDERSTANDING and the following shall serve as a *basis* for assignment of responsibilities and costs for the DEPARTMENT, CONTRACTOR and the OWNER to enter into a Standard Utility Agreement (SUA) or Contract Item Agreement (CIA), if necessary, with OWNER once the PROJECT is awarded to the CONTRACTOR. For a PROJECT implementation, GDOT will not have in its possession exact costing plans to be utilized to determine exact locations of the removal, relocation, protection, or adjustment. However, Overhead/Subsurface Utility Engineering (SUE) investigations plans exist providing the best information and signifying the layout of known existing facilities. Please use these plans for developing the final determination of services as indicated below. The CONTRACTOR developed plans will be provided to the OWNER after the design build project is awarded by GDOT which shall be used by the CONTRACTOR as the final basis for the SUA or CIA. **Betterment costs will be the OWNER'S responsibility.**

**NOTE: Water and Sewer Design and Construction relocation work put in the contract will automatically be accomplished by the DEPARTMENT'S CONTRACTOR. The UTILITY OWNER will still have design approval authority. (No Pre-Approved Contractor/Consultant List required, leave page 6 blank). If you are a Water & Sewer Utility and choose to put your relocation Design and Construction in the contract, please check Design and Construction under Option 2 under 3B. Owner's electing to perform their own design, at their own cost, please select design under 3C.**

OWNER hereby intends to:

- 3A. OWNER, at the DEPARTMENT'S cost through an Agreement, will provide the following services for the properties for which it has established prior rights (Check to signify):

Design \_\_\_\_\_  
Construction \_\_\_\_\_

- 3B. OWNER, at the CONTRACTOR'S cost, for any removal, relocation, protection, adjustment and/or design (Regardless of Prior Rights) will allow their facilities to be placed into the DEPARTMENT'S contract for the following services pursuant to O.C.G.A. § 32-6-170(b). The CONTRACTOR will add the removal, relocation, protection, materials, adjustment and/or design cost, excluding betterment, to the overall PROJECT's cost. (Check to signify):

**Option 1: OWNER wants the work to be performed by the OWNER's pre-approved Design Consultants and/or Contractors.**

Design   X    
Construction   X  

**Option 2: OWNER wants the DEPARTMENT'S CONTRACTOR to perform the design and/or construction. (Check to signify):**

Design         
Construction       

**If both are checked, please leave page 6 blank.**

As per this section, all work necessary for the removal, relocation, protection, or adjustment of the described utilities in accordance with the plans when approved shall be included in the project contract and accomplished by the CONTRACTOR except as follows (Check none or list any work items to be performed by the OWNER)

None       

Excluded Items \_\_\_\_\_

\_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- 3C. OWNER, at OWNER'S cost, will provide the following services (Check to signify):

Design         
Construction

**The following is hereby mutually agreed to and understood by both parties:**

1. The identification of existing facilities including preparation of Overhead/Subsurface Utility Engineering (SUE) investigations plans will be accomplished by the DEPARTMENT prior to award of the PROJECT and thereafter supplemented by the CONTRACTOR.
2. The CONTRACTOR shall coordinate reviews of the utility relocation information and obtain acceptance from the OWNER and DEPARTMENT when required. However; the OWNER shall apply for and obtain any required permits from the DEPARTMENT and perform any final design or proprietary design needed to administer its own relocation work if the work will not be included in the contract. If the preliminary plans indicate that no conflict exists, and the OWNER concurs with this information, the OWNER shall provide a letter of "no conflict" to the CONTRACTOR.
3. After award of the PROJECT, the CONTRACTOR will research any claimed compensable property interest for each OWNER claiming prior rights under section 3A and present the findings to the DEPARTMENT and OWNER for approval. The plans and estimate for the utility work shall be subject to approval of both the DEPARTMENT and the OWNER prior to construction. If the OWNER chooses to perform its own relocations and the OWNER holds no property interest as stated above; the OWNER shall confirm in writing that the OWNER will relocate its own facilities at no cost to the DEPARTMENT or the CONTRACTOR.
4. All construction engineering and contract supervision shall be the responsibility of the DEPARTMENT and the CONTRACTOR to ensure that all utility work included in the contract is accomplished in accordance with the PROJECT's plans and specifications. The CONTRACTOR will consult with the OWNER before authorizing any changes or deviations which affect the OWNER's facility.
5. For utility work included in the contract, the CONTRACTOR shall ensure that the design/construction and installation of the OWNER'S facilities is performed by a contractor/design consultant pre-approved/registered with both the DEPARTMENT and the OWNER. For any work included in the contract, excluding water and sewer, the OWNER will provide a list of pre-approved/registered contractors/design consultants on page 6 of the MOU.
6. For Utility work included in the contract, the OWNER or the OWNER's Consultant shall have the right to visit and inspect the work at any time and advise the CONTRACTOR and the DEPARTMENT'S Engineer of any observed discrepancies or potential issues. The DEPARTMENT agrees to notify the OWNER when all utility work is completed and ready for final inspection by the OWNER.
7. Upon Maintenance Acceptance or Final Acceptance of the utility work included in the contract and upon certification by the DEPARTMENT'S Engineer and the OWNER that the work has been completed in accordance with the plans and specifications, the OWNER will accept the adjusted, relocated, and additional facilities and will thereafter operate and maintain said facilities located within the PROJECT right of way subject to the DEPARTMENT'S Utility Accommodations Policy and Standards Manual (UAM), current edition" and any agreements in effect without further cost to the DEPARTMENT or its CONTRACTOR.
8. For the purpose of utility coordination, relocation and reimbursement matters, the OWNER shall cooperate with the CONTRACTOR in the same manner as if coordinating directly with the DEPARTMENT in accordance with the laws of the State of Georgia, the DEPARTMENT'S UAM and any agreements in effect between the DEPARTMENT and OWNER. The OWNER agrees to cooperate in good faith with the CONTRACTOR and to respond to all requests for information or meetings required to reach a resolution of any disputed items.
9. All Utility work included in the PROJECT's contract and Utility work completed by the OWNER that is reimbursed by the DEPARTMENT through an agreement shall be in accordance with the BUY AMERICA requirements of the Federal regulations (23 U.S.C. 313 and 23 CFR 635.410) all manufacturing processes for steel and iron products or predominantly of steel or iron (at least 90% steel or iron content) furnished for

permanent incorporation into the work on this project shall occur in the United States. The only exception to this requirement is the production of pig iron and the processing, pelletizing and reduction of iron ore, which may occur in another country. Other than these exceptions, all melting, rolling, extruding, machining, bending, grinding, drilling, coating, etc. must occur in the United States.

- a. Products of steel include, but are not limited to, such products as structural steel piles, reinforcing steel, structural plate, steel culverts, and guardrail steel supports for signs, signals and luminaires. Products of iron include, but are not limited to, such products as cast iron frames and grates and ductile iron pipe. Coatings include, but are not limited to, the applications of epoxy, galvanizing and paint. The coating material is not limited to this clause, only the application process.
- b. A Certificate of Compliance shall be furnished for steel and iron products as part of the backup information with the billing. The form for this certification entitled "Buy America Certificate of Compliance" is attached to this agreement as "Exhibit A." Records to be maintained by the Developer for this certification shall include a signed mill test report and a signed certification by each supplier, distributor, fabricator, and manufacturer that has handled the steel or iron product affirming that every process, including the application of a coating, performed on the steel or iron product has been carried out in the United States of America, except as allowed by this Section. The lack of these certifications will be justification for rejection of the steel and/or iron product or nonpayment of the work.
- c. The requirements of said law and regulations do not prevent the use of miscellaneous steel or iron components, subcomponents and hardware necessary to encase, assemble and construct the above products, manufactured products that are not predominantly steel or iron or a minimal use of foreign steel and iron materials if the cost of such materials used does not exceed one-tenth of one percent (0.1%) of the total contract price or \$2,500.00, whichever is greater.

The Memorandum of Understanding will be incorporated into the project contract by reference or Exhibit.

APPROVED FOR THE OWNER BY:



(Signature)



(Title)

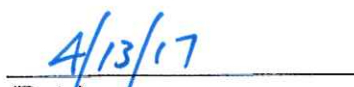


(Date)

APPROVED FOR THE DEPARTMENT BY:



(Signature)



(Date)

STATE UTILITIES ADMINISTRATOR

### Pre-Approved Contractor List

Company Name: Cable East Inc.  
Address: 1940 Statham Dr.  
Phone: Statham GA 30666  
Contact Person: 678-753-1410  
E-Mail: DALE MASSINGILL  
dale.massingill@cableeast.com

Company Name: CONTRAC SERVICES INC.  
Address: 2250 Lithonia Ind Blvd.  
Phone: Lithonia GA 30058  
Contact Person: 770-934-9595  
E-Mail: David Hendee  
david.hendee@contracinc.com

Company Name: SIGH Contracting INC  
Address: 155 Bankers Blvd  
Phone: Suite C-100  
Contact Person: Monroe GA 30655 678-446-5402  
E-Mail: Charles Nolte  
cnolte@sighcontracting.com

Please provide a minimum of three.

### Pre-Approved Design Consultant List

Company Name: Broadband Network Solutions Inc  
Address: 3950 Cobb Pkwy NW ALDQ 200  
Phone: Norcross GA 30091  
Contact Person: 770-966-0628  
E-Mail: bns-administration@bns-design.com

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

**April 4, 2017**

**From – Comcast Cable**

**To: GDOT State Utilities Office**

**Attn: Patrick Allen**

**Project: GDOT P.I. 00110610 & 0013545 Gwinnett, Barrow, Jackson**

**Reference: Georgia DOT Project: I-85 Widening - Reasoning for suppling less than 3 Pre-approved Design Consultants**

**To Whom it may concern:**

Due to the rural location of this project, we were only able to provide one (Sole Source provider) design consultant. If the winning Design-Build Contractor has access to other qualified companies, we will take that into consideration, only after they are vetted and approved by our internal staff. Please provide an exception for Comcast Cable for this project.

Sincerely,

Chris Bates – Construction Coordinator

# **Georgia Department of Transportation**

## **Technical Provisions**

### **For**

## **Design-Build Agreement**

### **P.I. No. 110610**

## **I-85 Widening**

### **Attachment 6-6**

## **Georgia Power Distribution MOU**

Georgia DOT Project: I-85 Widening  
GDOT P.I. # 110610 & 0013545

**DESIGN-BUILD**  
**MEMORANDUM OF UNDERSTANDING**  
between the  
Georgia Department of Transportation (hereafter the DEPARTMENT)  
and  
Georgia Power Distribution (hereafter the OWNER)

---

Whereas GDOT, hereafter referred to as the DEPARTMENT proposes to undertake a design-build project hereafter referred to as PROJECT # 110610 & 0013545 to Widen and reconstruct lanes in each direction from Hamilton Mill Road to SR 211 within Gwinnett and Barrow County, Georgia and from SR 211 to US 129 within Barrow and Jackson County, Georgia by contract through competitive bidding procedures; and,

Whereas the DEPARTMENT will accomplish the PROJECT through a Design Consultant, Design Consultant Team and/or Contractor, hereafter referred to as CONTRACTOR; and the utility owner hereafter referred to as the OWNER, and

Whereas, where OWNER has property rights ("Prior Rights") at the location of the PROJECT, OWNER will provide written evidence as to said prior rights within the area and will provide written documentation of prior rights relating to any individual crossing or Utility Facility, at the location of the PROJECT; and

Whereas, OWNER acknowledges that, generally, absent a showing of prior rights, the costs of relocation, protection, removal, or adjustment performed by OWNER shall be borne by OWNER; and

Whereas, pursuant to O.C.G.A. § 32-6-170(b), DEPARTMENT is authorized to pay or participate in the payment of the costs of relocation, protection, or adjustment of OWNER'S facilities where DEPARTMENT has made the determination that (i) such payments are in the best interest of the public and necessary in order to expedite the staging of the design-build project; and (ii) the costs of the removal, relocation, protection, or adjustment of such facilities are included as part of the Contract between the Department and the Department's roadway contractor for the design-build project; and

**1. Type of Utility**

OWNER has the following utility facilities which may need to be adjusted or relocated as a result of the proposed PROJECT:

Type of facility or facilities of OWNER:

- ☐ Domestic water mains and distribution lines and associated appurtenances
- ☐ Sanitary Sewer facilities and/or Storm Drainage System
- ☒ Electrical Distribution (overhead and underground) wires, poles, etc.
- ☐ Electrical Transmission (overhead and underground) wires, poles, etc.
- ☐ Natural Gas Distribution Facilities (underground)
- ☐ Natural Gas Transmission Facilities (underground)
- ☐ Petroleum Pipeline (underground)
- ☐ Telecommunications facilities and equipment
- ☐ Cable TV facilities
- ☐ Street Lighting
- ☐ Internet Data Service

\_\_\_\_ Other Facilities (Description) \_\_\_\_\_

## 2. New Utility Facilities Proposed (Betterment)

OWNER desires the following to be installed as new additional facilities within the PROJECT.  
Insert here or attach a detailed description of proposed new additional utility installations:

N/A

## 3. Assignment of Responsibilities for Design and Construction

This MEMORANDUM OF UNDERSTANDING and the following shall serve as a *basis* for assignment of responsibilities and costs for the DEPARTMENT, CONTRACTOR and the OWNER to enter into a Standard Utility Agreement (SUA) or Contract Item Agreement (CIA), if necessary, with OWNER once the PROJECT is awarded to the CONTRACTOR. For a PROJECT implementation, GDOT will not have in its possession exact costing plans to be utilized to determine exact locations of the removal, relocation, protection, or adjustment. However, Overhead/Subsurface Utility Engineering (SUE) investigations plans exist providing the best information and signifying the layout of known existing facilities. Please use these plans for developing the final determination of services as indicated below. The CONTRACTOR developed plans will be provided to the OWNER after the design build project is awarded by GDOT which shall be used by the CONTRACTOR as the final basis for the SUA or CIA. **Betterment costs will be the OWNER'S responsibility.**

**NOTE: Water and Sewer Design and Construction relocation work put in the contract will automatically be accomplished by the DEPARTMENT'S CONTRACTOR. The UTILITY OWNER will still have design approval authority. (No Pre-Approved Contractor/Consultant List required, leave page 6 blank). If you are a Water & Sewer Utility and choose to put your relocation Design and Construction in the contract, please check Design and Construction under Option 2 under 3B. Owner's electing to perform their own design, at their own cost, please select design under 3C.**

OWNER hereby intends to:

- 3A. OWNER, at the DEPARTMENT'S cost through an Agreement, will provide the following services for the properties for which it has established prior rights (Check to signify):

Design \_\_\_\_\_  
Construction \_\_\_\_\_

- 3B. OWNER, at the CONTRACTOR'S cost, for any removal, relocation, protection, adjustment and/or design (Regardless of Prior Rights) will allow their facilities to be placed into the DEPARTMENT'S contract for the following services pursuant to O.C.G.A. § 32-6-170(b). The CONTRACTOR will add the removal, relocation, protection, materials, adjustment and/or design cost, excluding betterment, to the overall PROJECT's cost. (Check to signify):

**Option 1: OWNER wants the work to be performed by the OWNER's pre-approved Design Consultants and/or Contractors.**

Design ☒  
Construction ☒

**Option 2: OWNER wants the DEPARTMENT'S CONTRACTOR to perform the design and/or construction. (Check to signify):**

Design ☐  
Construction ☐

**If both are checked, please leave page 6 blank.**

As per this section, all work necessary for the removal, relocation, protection, or adjustment of the described utilities in accordance with the plans when approved shall be included in the project contract and accomplished by the CONTRACTOR except as follows (Check none or list any work items to be performed by the OWNER)

None ☒

Excluded Items \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- 3C. OWNER, at OWNER'S cost, will provide the following services (Check to signify):

Design ☐  
Construction ☐

**The following is hereby mutually agreed to and understood by both parties:**

1. The identification of existing facilities including preparation of Overhead/Subsurface Utility Engineering (SUE) investigations plans will be accomplished by the DEPARTMENT prior to award of the PROJECT and thereafter supplemented by the CONTRACTOR.
2. The CONTRACTOR shall coordinate reviews of the utility relocation information and obtain acceptance from the OWNER and DEPARTMENT when required. However; the OWNER shall apply for and obtain any required permits from the DEPARTMENT and perform any final design or proprietary design needed to administer its own relocation work if the work will not be included in the contract. If the preliminary plans indicate that no conflict exists, and the OWNER concurs with this information, the OWNER shall provide a letter of "no conflict" to the CONTRACTOR.
3. After award of the PROJECT, the CONTRACTOR will research any claimed compensable property interest for each OWNER claiming prior rights under section 3A and present the findings to the DEPARTMENT and OWNER for approval. The plans and estimate for the utility work shall be subject to approval of both the DEPARTMENT and the OWNER prior to construction. If the OWNER chooses to perform its own relocations and the OWNER holds no property interest as stated above; the OWNER shall confirm in writing that the OWNER will relocate its own facilities at no cost to the DEPARTMENT or the CONTRACTOR.
4. All construction engineering and contract supervision shall be the responsibility of the DEPARTMENT and the CONTRACTOR to ensure that all utility work included in the contract is accomplished in accordance with the PROJECT's plans and specifications. The CONTRACTOR will consult with the OWNER before authorizing any changes or deviations which affect the OWNER's facility.
5. For utility work included in the contract, the CONTRACTOR shall ensure that the design/construction and installation of the OWNER'S facilities is performed by a contractor/design consultant pre-approved/registered with both the DEPARTMENT and the OWNER. For any work included in the contract, excluding water and sewer, the OWNER will provide a list of pre-approved/registered contractors/design consultants on page 6 of the MOU.
6. For Utility work included in the contract, the OWNER or the OWNER's Consultant shall have the right to visit and inspect the work at any time and advise the CONTRACTOR and the DEPARTMENT'S Engineer of any observed discrepancies or potential issues. The DEPARTMENT agrees to notify the OWNER when all utility work is completed and ready for final inspection by the OWNER.
7. Upon Maintenance Acceptance or Final Acceptance of the utility work included in the contract and upon certification by the DEPARTMENT'S Engineer and the OWNER that the work has been completed in accordance with the plans and specifications, the OWNER will accept the adjusted, relocated, and additional facilities and will thereafter operate and maintain said facilities located within the PROJECT right of way subject to the DEPARTMENT'S Utility Accommodations Policy and Standards Manual (UAM), current edition" and any agreements in effect without further cost to the DEPARTMENT or its CONTRACTOR.
8. For the purpose of utility coordination, relocation and reimbursement matters, the OWNER shall cooperate with the CONTRACTOR in the same manner as if coordinating directly with the DEPARTMENT in accordance with the laws of the State of Georgia, the DEPARTMENT'S UAM and any agreements in effect between the DEPARTMENT and OWNER. The OWNER agrees to cooperate in good faith with the CONTRACTOR and to respond to all requests for information or meetings required to reach a resolution of any disputed items.
9. All Utility work included in the PROJECT's contract and Utility work completed by the OWNER that is reimbursed by the DEPARTMENT through an agreement shall be in accordance with the BUY AMERICA requirements of the Federal regulations (23 U.S.C. 313 and 23 CFR 635.410) all manufacturing processes for

steel and iron products or predominantly of steel or iron (at least 90% steel or iron content) furnished for permanent incorporation into the work on this project shall occur in the United States. The only exception to this requirement is the production of pig iron and the processing, pelletizing and reduction of iron ore, which may occur in another country. Other than these exceptions, all melting, rolling, extruding, machining, bending, grinding, drilling, coating, etc. must occur in the United States.

- a. Products of steel include, but are not limited to, such products as structural steel piles, reinforcing steel, structural plate, steel culverts, and guardrail steel supports for signs, signals and luminaires. Products of iron include, but are not limited to, such products as cast iron frames and grates and ductile iron pipe. Coatings include, but are not limited to, the applications of epoxy, galvanizing and paint. The coating material is not limited to this clause, only the application process.
- b. A Certificate of Compliance shall be furnished for steel and iron products as part of the backup information with the billing. The form for this certification entitled "Buy America Certificate of Compliance" is attached to this agreement as "Exhibit A." Records to be maintained by the Developer for this certification shall include a signed mill test report and a signed certification by each supplier, distributor, fabricator, and manufacturer that has handled the steel or iron product affirming that every process, including the application of a coating, performed on the steel or iron product has been carried out in the United States of America, except as allowed by this Section. The lack of these certifications will be justification for rejection of the steel and/or iron product or nonpayment of the work.
- c. The requirements of said law and regulations do not prevent the use of miscellaneous steel or iron components, subcomponents and hardware necessary to encase, assemble and construct the above products, manufactured products that are not predominantly steel or iron or a minimal use of foreign steel and iron materials if the cost of such materials used does not exceed one-tenth of one percent (0.1%) of the total contract price or \$2,500.00, whichever is greater.

The Memorandum of Understanding will be incorporated into the project contract by reference or Exhibit.

APPROVED FOR THE OWNER BY:

  
(Signature)

March 8, 2017  
(Date)

Project Manager

(Title)

APPROVED FOR THE DEPARTMENT BY:

  
(Signature)

4/13/17  
(Date)

STATE UTILITIES ADMINISTRATOR

### **Pre-Approved Contractor List**

Company Name: See Attachment  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

**Please provide a minimum of three.**

### **Pre-Approved Design Consultant List**

Company Name: See Attachment  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

# GEORGIA POWER COMPANY

| Design Contractors       |                              |                                  |  |   |
|--------------------------|------------------------------|----------------------------------|--|---|
| Name                     | Contact                      | Phone Number                     | Email  | Address   |
| McLean Engineering       | Sean Knowles                 | (404) 520-0288                   | <a href="mailto:sean.knowles@mcleanengineering.com">sean.knowles@mcleanengineering.com</a>   | 1954 Airport Road, Suite 214, Chamblee GA 30341               |
| Storm Services           | Chester Parker<br>David Dent | (706) 833-4368<br>(678) 726-7551 | <a href="mailto:cparker48@gmail.com">cparker48@gmail.com</a> ;<br><a href="mailto:david@stormsl.com">david@stormsl.com</a>                                       | 432 Watroak Lane, Augusta, GA 30907                           |
| TRC / X Line             | L. Bryan Powell              | 770-459-5939                     | <a href="mailto:bpowell@trcsolutions.com">bpowell@trcsolutions.com</a>   | P.O.Box 1004, Villa Rica, GA 30180                            |
| UC / Synergetic          | Mark Murray                  | 770-835-0319                     | <a href="mailto:mmurray@ucsinc.com">mmurray@ucsinc.com</a>   | 1700 Water Place, Suite 100, Atlanta, GA                      |
| Construction Contractors |                              |                                  |  |   |
| Name                     | Contact                      | Phone Number                     | Email  | Address   |
| Associated Diversified   | Don McCurdy<br>Kelli James   | (256)221-8696<br>(256) 351-8622  | <a href="mailto:dmccurdy@wearediversified.com">dmccurdy@wearediversified.com</a><br><a href="mailto:kjames@wearediversified.com">kjames@wearediversified.com</a> | 2910 Hwy 31 NW<br>Hartselle, AL 35640                         |
| MasTec                   | Thomas Jones                 | 218-785-3030                     | <a href="mailto:thomas.jones@mastec.com">thomas.jones@mastec.com</a>   | 800 S. Douglas Road, 12th Floor<br>Coral Gables, FL 33134     |
| Pike Electric            | Todd Badgett                 | 333-719-4431                     | <a href="mailto:tbadgett@pike.com">tbadgett@pike.com</a>   | P.O. Box 868, 100 Pike Way<br>Mount Airy, NC 27030            |
| Service Electric         | Jody Shea                    | (423) 265-3161 x102              | <a href="mailto:jshea@serviceelectricco.com">jshea@serviceelectricco.com</a>   | 1631 East 25th Street<br>PO Box 3656<br>Chattanooga, TN 37404 |
| Sumter Utilities         | Mikell Murray                | 843-725-9521                     | <a href="mailto:immurray@suimail.com">immurray@suimail.com</a>   | 1151 North Pike West<br>Sumter, SC 29151                      |
| Utilicon                 | Jimmy Glover                 | (478) 348-3233                   | <a href="mailto:j.glover@utilicon.net">j.glover@utilicon.net</a>   | 13275 Highway 231<br>Davisboro, Ga 31018                      |
| Williams Electric        | Rick Falls                   | (704) 484-1882                   | <a href="mailto:rick.falls@weco.com">rick.falls@weco.com</a>   | P.O. Box 2367 Shelby, NC 28151                                |

# **Georgia Department of Transportation**

## **Technical Provisions**

### **For**

## **Design-Build Agreement**

### **P.I. No. 110610**

## **I-85 Widening**

### **Attachment 6-7a**

## **Georgia Power Transmission MOU**

Georgia DOT Project: I-85 Widening  
GDOT P.I. # 110610 & 0013545

**DESIGN-BUILD**  
**MEMORANDUM OF UNDERSTANDING**  
between the  
Georgia Department of Transportation (hereafter the DEPARTMENT)  
and  
Georgia Power Transmission (hereafter the OWNER)

---

Whereas GDOT, hereafter referred to as the DEPARTMENT proposes to undertake a design-build project hereafter referred to as PROJECT # 110610 & 0013545 to Widen and reconstruct lanes in each direction from Hamilton Mill Road to SR 211 within Gwinnett and Barrow County, Georgia and from SR 211 to US 129 within Barrow and Jackson County, Georgia by contract through competitive bidding procedures; and,

Whereas the DEPARTMENT will accomplish the PROJECT through a Design Consultant, Design Consultant Team and/or Contractor, hereafter referred to as CONTRACTOR; and the utility owner hereafter referred to as the OWNER, and

Whereas, where OWNER has property rights ("Prior Rights") at the location of the PROJECT, OWNER will provide written evidence as to said prior rights within the area and will provide written documentation of prior rights relating to any individual crossing or Utility Facility, at the location of the PROJECT; and

Whereas, OWNER acknowledges that, generally, absent a showing of prior rights, the costs of relocation, protection, removal, or adjustment performed by OWNER shall be borne by OWNER; and

Whereas, pursuant to O.C.G.A. § 32-6-170(b), DEPARTMENT is authorized to pay or participate in the payment of the costs of relocation, protection, or adjustment of OWNER'S facilities where DEPARTMENT has made the determination that (i) such payments are in the best interest of the public and necessary in order to expedite the staging of the design-build project; and (ii) the costs of the removal, relocation, protection, or adjustment of such facilities are included as part of the Contract between the Department and the Department's roadway contractor for the design-build project; and

**1. Type of Utility**

OWNER has the following utility facilities which may need to be adjusted or relocated as a result of the proposed PROJECT:

Type of facility or facilities of OWNER:

- ☐ Domestic water mains and distribution lines and associated appurtenances
- ☐ Sanitary Sewer facilities and/or Storm Drainage System
- ☐ Electrical Distribution (overhead and underground) wires, poles, etc.
- ☒ Electrical Transmission (overhead and underground) wires, poles, etc.
- ☐ Natural Gas Distribution Facilities (underground)
- ☐ Natural Gas Transmission Facilities (underground)
- ☐ Petroleum Pipeline (underground)
- ☐ Telecommunications facilities and equipment
- ☐ Cable TV facilities
- ☐ Street Lighting
- ☐ Internet Data Service

Other Facilities (Description) \_\_\_\_\_

## 2. New Utility Facilities Proposed (Betterment)

OWNER desires the following to be installed as new additional facilities within the PROJECT.  
Insert here or attach a detailed description of proposed new additional utility installations:

N/A

## 3. Assignment of Responsibilities for Design and Construction

This MEMORANDUM OF UNDERSTANDING and the following shall serve as a *basis* for assignment of responsibilities and costs for the DEPARTMENT, CONTRACTOR and the OWNER to enter into a Standard Utility Agreement (SUA) or Contract Item Agreement (CIA), if necessary, with OWNER once the PROJECT is awarded to the CONTRACTOR. For a PROJECT implementation, GDOT will not have in its possession exact costing plans to be utilized to determine exact locations of the removal, relocation, protection, or adjustment. However, Overhead/Subsurface Utility Engineering (SUE) investigations plans exist providing the best information and signifying the layout of known existing facilities. Please use these plans for developing the final determination of services as indicated below. The CONTRACTOR developed plans will be provided to the OWNER after the design build project is awarded by GDOT which shall be used by the CONTRACTOR as the final basis for the SUA or CIA. **Betterment costs will be the OWNER'S responsibility.**

**NOTE: Water and Sewer Design and Construction relocation work put in the contract will automatically be accomplished by the DEPARTMENT'S CONTRACTOR. The UTILITY OWNER will still have design approval authority. (No Pre-Approved Contractor/Consultant List required, leave page 6 blank). If you are a Water & Sewer Utility and choose to put your relocation Design and Construction in the contract, please check Design and Construction under Option 2 under 3B. Owner's electing to perform their own design, at their own cost, please select design under 3C.**

OWNER hereby intends to:

- 3A. OWNER, at the DEPARTMENT'S cost through an Agreement, will provide the following services for the properties for which it has established prior rights (Check to signify):

Design \_\_\_\_\_  
Construction \_\_\_\_\_

- 3B. OWNER, at the CONTRACTOR'S cost, for any removal, relocation, protection, adjustment and/or design (Regardless of Prior Rights) will allow their facilities to be placed into the DEPARTMENT'S contract for the following services pursuant to O.C.G.A. § 32-6-170(b). The CONTRACTOR will add the removal, relocation, protection, materials, adjustment and/or design cost, excluding betterment, to the overall PROJECT's cost. (Check to signify):

**Option 1: OWNER wants the work to be performed by the OWNER's pre-approved Design Consultants and/or Contractors.**

Design ☒  
Construction ☒

**Option 2: OWNER wants the DEPARTMENT'S CONTRACTOR to perform the design and/or construction. (Check to signify):**

Design ☐  
Construction ☐

**If both are checked, please leave page 6 blank.**

As per this section, all work necessary for the removal, relocation, protection, or adjustment of the described utilities in accordance with the plans when approved shall be included in the project contract and accomplished by the CONTRACTOR except as follows (Check none or list any work items to be performed by the OWNER)

None ☒

Excluded Items \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- 3C. OWNER, at OWNER'S cost, will provide the following services (Check to signify):

Design ☐  
Construction ☐

**The following is hereby mutually agreed to and understood by both parties:**

1. The identification of existing facilities including preparation of Overhead/Subsurface Utility Engineering (SUE) investigations plans will be accomplished by the DEPARTMENT prior to award of the PROJECT and thereafter supplemented by the CONTRACTOR.
2. The CONTRACTOR shall coordinate reviews of the utility relocation information and obtain acceptance from the OWNER and DEPARTMENT when required. However; the OWNER shall apply for and obtain any required permits from the DEPARTMENT and perform any final design or proprietary design needed to administer its own relocation work if the work will not be included in the contract. If the preliminary plans indicate that no conflict exists, and the OWNER concurs with this information, the OWNER shall provide a letter of "no conflict" to the CONTRACTOR.
3. After award of the PROJECT, the CONTRACTOR will research any claimed compensable property interest for each OWNER claiming prior rights under section 3A and present the findings to the DEPARTMENT and OWNER for approval. The plans and estimate for the utility work shall be subject to approval of both the DEPARTMENT and the OWNER prior to construction. If the OWNER chooses to perform its own relocations and the OWNER holds no property interest as stated above; the OWNER shall confirm in writing that the OWNER will relocate its own facilities at no cost to the DEPARTMENT or the CONTRACTOR.
4. All construction engineering and contract supervision shall be the responsibility of the DEPARTMENT and the CONTRACTOR to ensure that all utility work included in the contract is accomplished in accordance with the PROJECT's plans and specifications. The CONTRACTOR will consult with the OWNER before authorizing any changes or deviations which affect the OWNER's facility.
5. For utility work included in the contract, the CONTRACTOR shall ensure that the design/construction and installation of the OWNER'S facilities is performed by a contractor/design consultant pre-approved/registered with both the DEPARTMENT and the OWNER. For any work included in the contract, excluding water and sewer, the OWNER will provide a list of pre-approved/registered contractors/design consultants on page 6 of the MOU.
6. For Utility work included in the contract, the OWNER or the OWNER's Consultant shall have the right to visit and inspect the work at any time and advise the CONTRACTOR and the DEPARTMENT'S Engineer of any observed discrepancies or potential issues. The DEPARTMENT agrees to notify the OWNER when all utility work is completed and ready for final inspection by the OWNER.
7. Upon Maintenance Acceptance or Final Acceptance of the utility work included in the contract and upon certification by the DEPARTMENT'S Engineer and the OWNER that the work has been completed in accordance with the plans and specifications, the OWNER will accept the adjusted, relocated, and additional facilities and will thereafter operate and maintain said facilities located within the PROJECT right of way subject to the DEPARTMENT'S Utility Accommodations Policy and Standards Manual (UAM), current edition" and any agreements in effect without further cost to the DEPARTMENT or its CONTRACTOR.
8. For the purpose of utility coordination, relocation and reimbursement matters, the OWNER shall cooperate with the CONTRACTOR in the same manner as if coordinating directly with the DEPARTMENT in accordance with the laws of the State of Georgia, the DEPARTMENT'S UAM and any agreements in effect between the DEPARTMENT and OWNER. The OWNER agrees to cooperate in good faith with the CONTRACTOR and to respond to all requests for information or meetings required to reach a resolution of any disputed items.
9. All Utility work included in the PROJECT's contract and Utility work completed by the OWNER that is reimbursed by the DEPARTMENT through an agreement shall be in accordance with the BUY AMERICA requirements of the Federal regulations (23 U.S.C. 313 and 23 CFR 635.410) all manufacturing processes for

steel and iron products or predominantly of steel or iron (at least 90% steel or iron content) furnished for permanent incorporation into the work on this project shall occur in the United States. The only exception to this requirement is the production of pig iron and the processing, pelletizing and reduction of iron ore, which may occur in another country. Other than these exceptions, all melting, rolling, extruding, machining, bending, grinding, drilling, coating, etc. must occur in the United States.

- a. Products of steel include, but are not limited to, such products as structural steel piles, reinforcing steel, structural plate, steel culverts, and guardrail steel supports for signs, signals and luminaires. Products of iron include, but are not limited to, such products as cast iron frames and grates and ductile iron pipe. Coatings include, but are not limited to, the applications of epoxy, galvanizing and paint. The coating material is not limited to this clause, only the application process.
- b. A Certificate of Compliance shall be furnished for steel and iron products as part of the backup information with the billing. The form for this certification entitled "Buy America Certificate of Compliance" is attached to this agreement as "Exhibit A." Records to be maintained by the Developer for this certification shall include a signed mill test report and a signed certification by each supplier, distributor, fabricator, and manufacturer that has handled the steel or iron product affirming that every process, including the application of a coating, performed on the steel or iron product has been carried out in the United States of America, except as allowed by this Section. The lack of these certifications will be justification for rejection of the steel and/or iron product or nonpayment of the work.
- c. The requirements of said law and regulations do not prevent the use of miscellaneous steel or iron components, subcomponents and hardware necessary to encase, assemble and construct the above products, manufactured products that are not predominantly steel or iron or a minimal use of foreign steel and iron materials if the cost of such materials used does not exceed one-tenth of one percent (0.1%) of the total contract price or \$2,500.00, whichever is greater.

The Memorandum of Understanding will be incorporated into the project contract by reference or Exhibit.

APPROVED FOR THE OWNER BY:

  
\_\_\_\_\_  
(Signature)

March 8, 2017  
\_\_\_\_\_  
(Date)

Project Manager  
\_\_\_\_\_  
(Title)

APPROVED FOR THE DEPARTMENT BY:

  
\_\_\_\_\_  
(Signature)

4/13/17  
\_\_\_\_\_  
(Date)

STATE UTILITIES ADMINISTRATOR

### **Pre-Approved Contractor List**

Company Name: See Attachment  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

**Please provide a minimum of three.**

### **Pre-Approved Design Consultant List**

Company Name: See Attachment  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

**EXHIBIT A**  
**UTILITY OWNER PRE-APPROVED CONTRACTOR/CONSULTANT LIST**

**Pre-Approved Contractor List**

Company Name: Irby Construction Company  
Address: 318 Old Highway 49 South  
Richland, MS 39218  
Contact Doug Blake, Vice President - Operations  
Phone: 601-292-4143  
[blake@irbyconst.com](mailto:blake@irbyconst.com)

Company Name: Service Electric  
Address: 1631 East 25<sup>th</sup> Street, Chattanooga, TN 37404  
Phone: 423-265-3161  
Contact Person: Jody Shea  
E-Mail: [jshea@serviceelectricco.com](mailto:jshea@serviceelectricco.com)

Company Name: Pike Electric  
Address: 100 Pike Way, Mount Airy, NC 27030  
Phone: 336-789-2171  
Contact Person: James T. Benfield, Region VP  
[jbenfield@pike.com](mailto:jbenfield@pike.com) or  
Todd Badgett  
E-Mail: [tbadgett@pike.com](mailto:tbadgett@pike.com)

Company Name: Sumter Utilities  
Address: 1151 North Pike West, Sumter, SC 29153  
Phone: 803-469-8585  
Contact Person: Colin Chalup  
E-Mail: [cchalupa@suimail.com](mailto:cchalupa@suimail.com)

Company Name: Utilicon  
Address: 13275 Highway 231, Davisboro, GA 31018  
Phone: 478-348-3233  
Contact Person: Joan Glover  
E-Mail: [joan.glover@utilicon.net](mailto:joan.glover@utilicon.net)

Company Name: L.E. Myers  
Address: 401 Chestnut Street, Suite 120; Chattanooga, TN 37402  
Phone: 423-265-4441 x 4133  
Contact Person: Danny Gessman  
E-Mail: [dgessman@myrgroup.com](mailto:dgessman@myrgroup.com)

**EXHIBIT A**  
**UTILITY OWNER PRE-APPROVED CONTRACTOR/CONSULTANT LIST**

**Pre-Approved Design Consultant List**

Company: **Apogee Engineers, LLC**  
Address: 4856 Anderson Road  
Orlando, Florida 32812  
Contact Person: David H. Seligson  
Phone: 407-658-7590  
Email: [David.Seligson@ApogeeEngineers.com](mailto:David.Seligson@ApogeeEngineers.com)

Company: **Mesa Associates**  
Address: 629 Market Street, Suite 200  
Chattanooga, TN 37402  
Contact Person: Kazem Shomali  
Phone: 423-424-7345  
Email: [kshomali@mesainc.com](mailto:kshomali@mesainc.com)

Company Name: **Power Delivery Solutions**  
Address: 100 Commerce Drive, Suite 201  
Newark, DE 19713  
Contact Person: Dean Sevy  
Phone: 770-617-6921  
Email: [Dsevy@powerdsllc.com](mailto:Dsevy@powerdsllc.com)

Company: **S. Nelson & Associates**  
Address: 110 Evans Mill Drive Suite 204  
Dallas, GA 30157  
Contact Person: Graham Smith  
Phone: 770-841-8242  
Email: [GSMITH@S-NELSON.COM](mailto:GSMITH@S-NELSON.COM)



# **Georgia Department of Transportation**

## **Technical Provisions**

### **For**

## **Design-Build Agreement**

### **P.I. No. 110610**

## **I-85 Widening**

### **Attachment 6-7b**

## **Georgia Power Transmission MOU**

Georgia DOT Project: I-85 Widening  
GDOT P.I. # 110610 & 0013545

**DESIGN-BUILD**  
**MEMORANDUM OF UNDERSTANDING**  
between the  
Georgia Department of Transportation (hereafter the DEPARTMENT)  
and  
Georgia Power Transmission (hereafter the OWNER)

---

Whereas GDOT, hereafter referred to as the DEPARTMENT proposes to undertake a design-build project hereafter referred to as PROJECT # 110610 & 0013545 to Widen and reconstruct lanes in each direction from Hamilton Mill Road to SR 211 within Gwinnett and Barrow County, Georgia and from SR 211 to US 129 within Barrow and Jackson County, Georgia by contract through competitive bidding procedures; and,

Whereas the DEPARTMENT will accomplish the PROJECT through a Design Consultant, Design Consultant Team and/or Contractor, hereafter referred to as CONTRACTOR; and the utility owner hereafter referred to as the OWNER, and

Whereas, where OWNER has property rights ("Prior Rights") at the location of the PROJECT, OWNER will provide written evidence as to said prior rights within the area and will provide written documentation of prior rights relating to any individual crossing or Utility Facility, at the location of the PROJECT; and

Whereas, OWNER acknowledges that, generally, absent a showing of prior rights, the costs of relocation, protection, removal, or adjustment performed by OWNER shall be borne by OWNER; and

Whereas, pursuant to O.C.G.A. § 32-6-170(b), DEPARTMENT is authorized to pay or participate in the payment of the costs of relocation, protection, or adjustment of OWNER'S facilities where DEPARTMENT has made the determination that (i) such payments are in the best interest of the public and necessary in order to expedite the staging of the design-build project; and (ii) the costs of the removal, relocation, protection, or adjustment of such facilities are included as part of the Contract between the Department and the Department's roadway contractor for the design-build project; and

**1. Type of Utility**

OWNER has the following utility facilities which may need to be adjusted or relocated as a result of the proposed PROJECT:

Type of facility or facilities of OWNER:

- ☐ Domestic water mains and distribution lines and associated appurtenances
- ☐ Sanitary Sewer facilities and/or Storm Drainage System
- ☐ Electrical Distribution (overhead and underground) wires, poles, etc.
- ☒ Electrical Transmission (overhead and underground) wires, poles, etc.
- ☐ Natural Gas Distribution Facilities (underground)
- ☐ Natural Gas Transmission Facilities (underground)
- ☐ Petroleum Pipeline (underground)
- ☐ Telecommunications facilities and equipment
- ☐ Cable TV facilities
- ☐ Street Lighting
- ☐ Internet Data Service

Other Facilities (Description) \_\_\_\_\_

## 2. New Utility Facilities Proposed (Betterment)

OWNER desires the following to be installed as new additional facilities within the PROJECT.  
Insert here or attach a detailed description of proposed new additional utility installations:

N/A

## 3. Assignment of Responsibilities for Design and Construction

This MEMORANDUM OF UNDERSTANDING and the following shall serve as a *basis* for assignment of responsibilities and costs for the DEPARTMENT, CONTRACTOR and the OWNER to enter into a Standard Utility Agreement (SUA) or Contract Item Agreement (CIA), if necessary, with OWNER once the PROJECT is awarded to the CONTRACTOR. For a PROJECT implementation, GDOT will not have in its possession exact costing plans to be utilized to determine exact locations of the removal, relocation, protection, or adjustment. However, Overhead/Subsurface Utility Engineering (SUE) investigations plans exist providing the best information and signifying the layout of known existing facilities. Please use these plans for developing the final determination of services as indicated below. The CONTRACTOR developed plans will be provided to the OWNER after the design build project is awarded by GDOT which shall be used by the CONTRACTOR as the final basis for the SUA or CIA. **Betterment costs will be the OWNER'S responsibility.**

**NOTE: Water and Sewer Design and Construction relocation work put in the contract will automatically be accomplished by the DEPARTMENT'S CONTRACTOR. The UTILITY OWNER will still have design approval authority. (No Pre-Approved Contractor/Consultant List required, leave page 6 blank). If you are a Water & Sewer Utility and choose to put your relocation Design and Construction in the contract, please check Design and Construction under Option 2 under 3B. Owner's electing to perform their own design, at their own cost, please select design under 3C.**

OWNER hereby intends to:

- 3A. OWNER, at the DEPARTMENT'S cost through an Agreement, will provide the following services for the properties for which it has established prior rights (Check to signify):

Design \_\_\_\_\_  
Construction \_\_\_\_\_

- 3B. OWNER, at the CONTRACTOR'S cost, for any removal, relocation, protection, adjustment and/or design (Regardless of Prior Rights) will allow their facilities to be placed into the DEPARTMENT'S contract for the following services pursuant to O.C.G.A. § 32-6-170(b). The CONTRACTOR will add the removal, relocation, protection, materials, adjustment and/or design cost, excluding betterment, to the overall PROJECT's cost. (Check to signify):

**Option 1: OWNER wants the work to be performed by the OWNER's pre-approved Design Consultants and/or Contractors.**

Design ☒  
Construction ☒

**Option 2: OWNER wants the DEPARTMENT'S CONTRACTOR to perform the design and/or construction. (Check to signify):**

Design ☐  
Construction ☐

**If both are checked, please leave page 6 blank.**

As per this section, all work necessary for the removal, relocation, protection, or adjustment of the described utilities in accordance with the plans when approved shall be included in the project contract and accomplished by the CONTRACTOR except as follows (Check none or list any work items to be performed by the OWNER)

None ☒

Excluded Items \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- 3C. OWNER, at OWNER'S cost, will provide the following services (Check to signify):

Design ☐  
Construction ☐

**The following is hereby mutually agreed to and understood by both parties:**

1. The identification of existing facilities including preparation of Overhead/Subsurface Utility Engineering (SUE) investigations plans will be accomplished by the DEPARTMENT prior to award of the PROJECT and thereafter supplemented by the CONTRACTOR.
2. The CONTRACTOR shall coordinate reviews of the utility relocation information and obtain acceptance from the OWNER and DEPARTMENT when required. However; the OWNER shall apply for and obtain any required permits from the DEPARTMENT and perform any final design or proprietary design needed to administer its own relocation work if the work will not be included in the contract. If the preliminary plans indicate that no conflict exists, and the OWNER concurs with this information, the OWNER shall provide a letter of "no conflict" to the CONTRACTOR.
3. After award of the PROJECT, the CONTRACTOR will research any claimed compensable property interest for each OWNER claiming prior rights under section 3A and present the findings to the DEPARTMENT and OWNER for approval. The plans and estimate for the utility work shall be subject to approval of both the DEPARTMENT and the OWNER prior to construction. If the OWNER chooses to perform its own relocations and the OWNER holds no property interest as stated above; the OWNER shall confirm in writing that the OWNER will relocate its own facilities at no cost to the DEPARTMENT or the CONTRACTOR.
4. All construction engineering and contract supervision shall be the responsibility of the DEPARTMENT and the CONTRACTOR to ensure that all utility work included in the contract is accomplished in accordance with the PROJECT's plans and specifications. The CONTRACTOR will consult with the OWNER before authorizing any changes or deviations which affect the OWNER's facility.
5. For utility work included in the contract, the CONTRACTOR shall ensure that the design/construction and installation of the OWNER'S facilities is performed by a contractor/design consultant pre-approved/registered with both the DEPARTMENT and the OWNER. For any work included in the contract, excluding water and sewer, the OWNER will provide a list of pre-approved/registered contractors/design consultants on page 6 of the MOU.
6. For Utility work included in the contract, the OWNER or the OWNER's Consultant shall have the right to visit and inspect the work at any time and advise the CONTRACTOR and the DEPARTMENT'S Engineer of any observed discrepancies or potential issues. The DEPARTMENT agrees to notify the OWNER when all utility work is completed and ready for final inspection by the OWNER.
7. Upon Maintenance Acceptance or Final Acceptance of the utility work included in the contract and upon certification by the DEPARTMENT'S Engineer and the OWNER that the work has been completed in accordance with the plans and specifications, the OWNER will accept the adjusted, relocated, and additional facilities and will thereafter operate and maintain said facilities located within the PROJECT right of way subject to the DEPARTMENT'S Utility Accommodations Policy and Standards Manual (UAM), current edition" and any agreements in effect without further cost to the DEPARTMENT or its CONTRACTOR.
8. For the purpose of utility coordination, relocation and reimbursement matters, the OWNER shall cooperate with the CONTRACTOR in the same manner as if coordinating directly with the DEPARTMENT in accordance with the laws of the State of Georgia, the DEPARTMENT'S UAM and any agreements in effect between the DEPARTMENT and OWNER. The OWNER agrees to cooperate in good faith with the CONTRACTOR and to respond to all requests for information or meetings required to reach a resolution of any disputed items.
9. All Utility work included in the PROJECT's contract and Utility work completed by the OWNER that is reimbursed by the DEPARTMENT through an agreement shall be in accordance with the BUY AMERICA requirements of the Federal regulations (23 U.S.C. 313 and 23 CFR 635.410) all manufacturing processes for

steel and iron products or predominantly of steel or iron (at least 90% steel or iron content) furnished for permanent incorporation into the work on this project shall occur in the United States. The only exception to this requirement is the production of pig iron and the processing, pelletizing and reduction of iron ore, which may occur in another country. Other than these exceptions, all melting, rolling, extruding, machining, bending, grinding, drilling, coating, etc. must occur in the United States.

- a. Products of steel include, but are not limited to, such products as structural steel piles, reinforcing steel, structural plate, steel culverts, and guardrail steel supports for signs, signals and luminaires. Products of iron include, but are not limited to, such products as cast iron frames and grates and ductile iron pipe. Coatings include, but are not limited to, the applications of epoxy, galvanizing and paint. The coating material is not limited to this clause, only the application process.
- b. A Certificate of Compliance shall be furnished for steel and iron products as part of the backup information with the billing. The form for this certification entitled "Buy America Certificate of Compliance" is attached to this agreement as "Exhibit A." Records to be maintained by the Developer for this certification shall include a signed mill test report and a signed certification by each supplier, distributor, fabricator, and manufacturer that has handled the steel or iron product affirming that every process, including the application of a coating, performed on the steel or iron product has been carried out in the United States of America, except as allowed by this Section. The lack of these certifications will be justification for rejection of the steel and/or iron product or nonpayment of the work.
- c. The requirements of said law and regulations do not prevent the use of miscellaneous steel or iron components, subcomponents and hardware necessary to encase, assemble and construct the above products, manufactured products that are not predominantly steel or iron or a minimal use of foreign steel and iron materials if the cost of such materials used does not exceed one-tenth of one percent (0.1%) of the total contract price or \$2,500.00, whichever is greater.

The Memorandum of Understanding will be incorporated into the project contract by reference or Exhibit.

APPROVED FOR THE OWNER BY:

  
(Signature)

March 8, 2017  
(Date)

Project Manager  
(Title)

APPROVED FOR THE DEPARTMENT BY:

  
(Signature)

4/13/17  
(Date)

STATE UTILITIES ADMINISTRATOR

### **Pre-Approved Contractor List**

Company Name: See Attachment  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

**Please provide a minimum of three.**

### **Pre-Approved Design Consultant List**

Company Name: See Attachment  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

**EXHIBIT A**  
**UTILITY OWNER PRE-APPROVED CONTRACTOR/CONSULTANT LIST**

**Pre-Approved Contractor List**

Company Name: Irby Construction Company  
Address: 318 Old Highway 49 South  
Richland, MS 39218  
Contact Doug Blake, Vice President - Operations  
Phone: 601-292-4143  
[blake@irbyconst.com](mailto:blake@irbyconst.com)

Company Name: Service Electric  
Address: 1631 East 25<sup>th</sup> Street, Chattanooga, TN 37404  
Phone: 423-265-3161  
Contact Person: Jody Shea  
E-Mail: [jshea@serviceelectricco.com](mailto:jshea@serviceelectricco.com)

Company Name: Pike Electric  
Address: 100 Pike Way, Mount Airy, NC 27030  
Phone: 336-789-2171  
Contact Person: James T. Benfield, Region VP  
[jbenfield@pike.com](mailto:jbenfield@pike.com) or  
Todd Badgett  
E-Mail: [tbadgett@pike.com](mailto:tbadgett@pike.com)

Company Name: Sumter Utilities  
Address: 1151 North Pike West, Sumter, SC 29153  
Phone: 803-469-8585  
Contact Person: Colin Chalup  
E-Mail: [cchalupa@suimail.com](mailto:cchalupa@suimail.com)

Company Name: Utilicon  
Address: 13275 Highway 231, Davisboro, GA 31018  
Phone: 478-348-3233  
Contact Person: Joan Glover  
E-Mail: [joan.glover@utilicon.net](mailto:joan.glover@utilicon.net)

Company Name: L.E. Myers  
Address: 401 Chestnut Street, Suite 120; Chattanooga, TN 37402  
Phone: 423-265-4441 x 4133  
Contact Person: Danny Gessman  
E-Mail: [dgessman@myrgroup.com](mailto:dgessman@myrgroup.com)

**EXHIBIT A**  
**UTILITY OWNER PRE-APPROVED CONTRACTOR/CONSULTANT LIST**

**Pre-Approved Design Consultant List**

Company: **Apogee Engineers, LLC**  
Address: 4856 Anderson Road  
Orlando, Florida 32812  
Contact Person: David H. Seligson  
Phone: 407-658-7590  
Email: [David.Seligson@ApogeeEngineers.com](mailto:David.Seligson@ApogeeEngineers.com)

Company: **Mesa Associates**  
Address: 629 Market Street, Suite 200  
Chattanooga, TN 37402  
Contact Person: Kazem Shomali  
Phone: 423-424-7345  
Email: [kshomali@mesainc.com](mailto:kshomali@mesainc.com)

Company Name: **Power Delivery Solutions**  
Address: 100 Commerce Drive, Suite 201  
Newark, DE 19713  
Contact Person: Dean Sevy  
Phone: 770-617-6921  
Email: [Dsevy@powerdsllc.com](mailto:Dsevy@powerdsllc.com)

Company: **S. Nelson & Associates**  
Address: 110 Evans Mill Drive Suite 204  
Dallas, GA 30157  
Contact Person: Graham Smith  
Phone: 770-841-8242  
Email: [GSMITH@S-NELSON.COM](mailto:GSMITH@S-NELSON.COM)



# **Georgia Department of Transportation**

## **Technical Provisions**

### **For**

## **Design-Build Agreement**

### **P.I. No. 110610**

## **I-85 Widening**

### **Attachment 6-8**

## **Gwinnett County Department of**

## **Water Resources MOU**

Georgia DOT Project: I-85 widening  
 GDOT P.I. 0110610 & 0013545

## DESIGN-BUILD MEMORANDUM OF UNDERSTANDING

between the  
 Georgia Department of Transportation (hereafter the DEPARTMENT)  
 and  
Gwinnett County Department of Water Resources (hereafter the OWNER)

Whereas GDOT, hereafter referred to as the DEPARTMENT proposes to undertake a design-build project hereafter referred to as PROJECT to as PROJECT # 110610 & 0013545 to Widen and reconstruct lanes in each direction from Hamilton Mill Road to SR 211 within Gwinnett and Barrow County, Georgia, and from SR 211 to UA 129 within Barrow and Jackson County, Georgia by contract through competitive bidding procedures; and,

Whereas the DEPARTMENT will accomplish the PROJECT through a Design Consultant, Design Consultant Team and/or Contractor, hereafter referred to as CONTRACTOR; and the utility owner hereafter referred to as the OWNER, and

Whereas, where OWNER has property rights ("Prior Rights") at the location of the PROJECT, OWNER will provide written evidence as to said prior rights within the area and will provide written documentation of prior rights relating to any individual crossing or Utility Facility, at the location of the PROJECT; and

Whereas, OWNER acknowledges that, generally, absent a showing of prior rights, the costs of relocation, protection, removal, or adjustment performed by OWNER shall be borne by OWNER; and

Whereas, pursuant to O.C.G.A. § 32-6-170(b), DEPARTMENT is authorized to pay or participate in the payment of the costs of relocation, protection, or adjustment of OWNER'S facilities where DEPARTMENT has made the determination that (i) such payments are in the best interest of the public and necessary in order to expedite the staging of the design-build project; and (ii) the costs of the removal, relocation, protection, or adjustment of such facilities are included as part of the Contract between the Department and the Department's roadway contractor for the design-build project; and

### 1. Type of Utility

OWNER has the following utility facilities which may need to be adjusted or relocated as a result of the proposed PROJECT:

Type of facility or facilities of OWNER:

- ☒ Domestic water mains and distribution lines and associated appurtenances
- ☒ Sanitary Sewer facilities and/or Storm Drainage System
- ☐ Electrical Distribution (overhead and underground) wires, poles, etc.
- ☐ Electrical Transmission (overhead and underground) wires, poles, etc.
- ☐ Natural Gas Distribution Facilities (underground)
- ☐ Natural Gas Transmission Facilities (underground)
- ☐ Petroleum Pipeline (underground)
- ☐ Telecommunications facilities and equipment
- ☐ Cable TV facilities
- ☐ Street Lighting
- ☐ Internet Data Service

\_\_\_\_\_ Other Facilities (Description) \_\_\_\_\_

## 2. New Utility Facilities Proposed (Betterment)

OWNER desires the following to be installed as new additional facilities within the PROJECT.  
Insert here or attach a detailed description of proposed new additional utility installations:

\_\_\_\_\_

\_\_\_\_\_

## 3. Assignment of Responsibilities for Design and Construction

This MEMORANDUM OF UNDERSTANDING and the following shall serve as a *basis* for assignment of responsibilities and costs for the DEPARTMENT, CONTRACTOR and the OWNER to enter into a Standard Utility Agreement (SUA) or Contract Item Agreement (CIA), if necessary, with OWNER once the PROJECT is awarded to the CONTRACTOR. For a PROJECT implementation, GDOT will not have in its possession exact costing plans to be utilized to determine exact locations of the removal, relocation, protection, or adjustment. However, Overhead/Subsurface Utility Engineering (SUE) investigations plans exist providing the best information and signifying the layout of known existing facilities. Please use these plans for developing the final determination of services as indicated below. The CONTRACTOR developed plans will be provided to the OWNER after the design build project is awarded by GDOT which shall be used by the CONTRACTOR as the final basis for the SUA or CIA. **Betterment costs will be the OWNER'S responsibility.**

**NOTE: Water and Sewer Design and Construction relocation work put in the contract will automatically be accomplished by the DEPARTMENT'S CONTRACTOR. The UTILITY OWNER will still have design approval authority. (No Pre-Approved Contractor/Consultant List required, leave page 6 blank). If you are a Water & Sewer Utility and choose to put your relocation Design and Construction in the contract, please check Design and Construction under Option 2 under 3B. Owner's electing to perform their own design, at their own cost, please select design under 3C.**

OWNER hereby intends to:

- 3A. OWNER, at the DEPARTMENT'S cost through an Agreement, will provide the following services for the properties for which it has established prior rights (Check to signify):

Design \_\_\_\_\_  
Construction \_\_\_\_\_

- 3B. OWNER, at the CONTRACTOR'S cost, for any removal, relocation, protection, adjustment and/or design (Regardless of Prior Rights) will allow their facilities to be placed into the DEPARTMENT'S contract for the following services pursuant to O.C.G.A. § 32-6-170(b). The CONTRACTOR will add the removal, relocation, protection, materials, adjustment and/or design cost, excluding betterment, to the overall PROJECT's cost. (Check to signify):

**Option 1: OWNER wants the work to be performed by the OWNER's pre-approved Design Consultants and/or Contractors.**

Design ☒ X  
Construction ☒ X

**Option 2: OWNER wants the DEPARTMENT'S CONTRACTOR to perform the design and/or construction. (Check to signify):**

Design \_\_\_\_\_  
Construction \_\_\_\_\_ **If both are checked, please leave page 6 blank.**

As per this section, all work necessary for the removal, relocation, protection, or adjustment of the described utilities in accordance with the plans when approved shall be included in the project contract and accomplished by the CONTRACTOR except as follows (Check none or list any work items to be performed by the OWNER)

None ☒ X

Excluded Items \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- 3C. OWNER, at OWNER'S cost, will provide the following services (Check to signify):

Design \_\_\_\_\_  
Construction \_\_\_\_\_

**The following is hereby mutually agreed to and understood by both parties:**

1. The identification of existing facilities including preparation of Overhead/Subsurface Utility Engineering (SUE) investigations plans will be accomplished by the DEPARTMENT prior to award of the PROJECT and thereafter supplemented by the CONTRACTOR.
2. The CONTRACTOR shall coordinate reviews of the utility relocation information and obtain acceptance from the OWNER and DEPARTMENT when required. However; the OWNER shall apply for and obtain any required permits from the DEPARTMENT and perform any final design or proprietary design needed to administer its own relocation work if the work will not be included in the contract. If the preliminary plans indicate that no conflict exists, and the OWNER concurs with this information, the OWNER shall provide a letter of "no conflict" to the CONTRACTOR.
3. After award of the PROJECT, the CONTRACTOR will research any claimed compensable property interest for each OWNER claiming prior rights under section 3A and present the findings to the DEPARTMENT and OWNER for approval. The plans and estimate for the utility work shall be subject to approval of both the DEPARTMENT and the OWNER prior to construction. If the OWNER chooses to perform its own relocations and the OWNER holds no property interest as stated above; the OWNER shall confirm in writing that the OWNER will relocate its own facilities at no cost to the DEPARTMENT or the CONTRACTOR.
4. All construction engineering and contract supervision shall be the responsibility of the DEPARTMENT and the CONTRACTOR to ensure that all utility work included in the contract is accomplished in accordance with the PROJECT's plans and specifications. The CONTRACTOR will consult with the OWNER before authorizing any changes or deviations which affect the OWNER's facility.
5. For utility work included in the contract, the CONTRACTOR shall ensure that the design/construction and installation of the OWNER'S facilities is performed by a contractor/design consultant pre-approved/registered with both the DEPARTMENT and the OWNER. For any work included in the contract, excluding water and sewer, the OWNER will provide a list of pre-approved/registered contractors/design consultants on page 6 of the MOU.
6. For Utility work included in the contract, the OWNER or the OWNER's Consultant shall have the right to visit and inspect the work at any time and advise the CONTRACTOR and the DEPARTMENT'S Engineer of any observed discrepancies or potential issues. The DEPARTMENT agrees to notify the OWNER when all utility work is completed and ready for final inspection by the OWNER.
7. Upon Maintenance Acceptance or Final Acceptance of the utility work included in the contract and upon certification by the DEPARTMENT'S Engineer and the OWNER that the work has been completed in accordance with the plans and specifications, the OWNER will accept the adjusted, relocated, and additional facilities and will thereafter operate and maintain said facilities located within the PROJECT right of way subject to the DEPARTMENT'S Utility Accommodations Policy and Standards Manual (UAM), current edition" and any agreements in effect without further cost to the DEPARTMENT or its CONTRACTOR.
8. For the purpose of utility coordination, relocation and reimbursement matters, the OWNER shall cooperate with the CONTRACTOR in the same manner as if coordinating directly with the DEPARTMENT in accordance with the laws of the State of Georgia, the DEPARTMENT'S UAM and any agreements in effect between the DEPARTMENT and OWNER. The OWNER agrees to cooperate in good faith with the CONTRACTOR and to respond to all requests for information or meetings required to reach a resolution of any disputed items.
9. All Utility work included in the PROJECT's contract and Utility work completed by the OWNER that is reimbursed by the DEPARTMENT through an agreement shall be in accordance with the BUY AMERICA

requirements of the Federal regulations (23 U.S.C. 313 and 23 CFR 635.410) all manufacturing processes for steel and iron products or predominantly of steel or iron (at least 90% steel or iron content) furnished for permanent incorporation into the work on this project shall occur in the United States. The only exception to this requirement is the production of pig iron and the processing, pelletizing and reduction of iron ore, which may occur in another country. Other than these exceptions, all melting, rolling, extruding, machining, bending, grinding, drilling, coating, etc. must occur in the United States.

- a. Products of steel include, but are not limited to, such products as structural steel piles, reinforcing steel, structural plate, steel culverts, and guardrail steel supports for signs, signals and luminaires. Products of iron include, but are not limited to, such products as cast iron frames and grates and ductile iron pipe. Coatings include, but are not limited to, the applications of epoxy, galvanizing and paint. The coating material is not limited to this clause, only the application process.
- b. A Certificate of Compliance shall be furnished for steel and iron products as part of the backup information with the billing. The form for this certification entitled "Buy America Certificate of Compliance" is attached to this agreement as "Exhibit A." Records to be maintained by the Developer for this certification shall include a signed mill test report and a signed certification by each supplier, distributor, fabricator, and manufacturer that has handled the steel or iron product affirming that every process, including the application of a coating, performed on the steel or iron product has been carried out in the United States of America, except as allowed by this Section. The lack of these certifications will be justification for rejection of the steel and/or iron product or nonpayment of the work.
- c. The requirements of said law and regulations do not prevent the use of miscellaneous steel or iron components, subcomponents and hardware necessary to encase, assemble and construct the above products, manufactured products that are not predominantly steel or iron or a minimal use of foreign steel and iron materials if the cost of such materials used does not exceed one-tenth of one percent (0.1%) of the total contract price or \$2,500.00, whichever is greater.

The Memorandum of Understanding will be incorporated into the project contract by reference or Exhibit.

APPROVED FOR THE OWNER BY:

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Title)

APPROVED FOR THE DEPARTMENT BY:

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

STATE UTILITIES ADMINISTRATOR

**Please see GCDWR's attachments:**

- 1. Pre-Qualification For Utility Relocations Associated with Road Improvements Pre-Qualified Contractors.**
- 2. Pre-Approved Design Consultant for the Design-Build Memorandum of Understanding.**

**Pre-Approved Contractor List**

Company Name:

Address:

Phone:

Contact Person:

E-Mail:

Company Name:

Address:

Phone:

Contact Person:

E-Mail:

Company Name:

Address:

Phone:

Contact Person:

E-Mail:

**Please provide a minimum of three.**

**Pre-Approved Design Consultant List**

Company Name:

Address:

Phone:

Contact Person:

E-Mail:

Company Name:

Address:

Phone:

Contact Person:

E-Mail:

Company Name:

Address:

Phone:

Contact Person:

E-Mail:

Pre-Qualification For Utility Relocations  
Associated with Road Improvements  
Pre-Qualified Contractors

| Pressurized Mains                     |                                       | Gravity Sanitary Sewer Mains       |                                   |
|---------------------------------------|---------------------------------------|------------------------------------|-----------------------------------|
| 16" and Smaller<br>[Sub-Section 1]    | 16" and Larger<br>[Sub-Section 2]     | 18" and Smaller<br>[Sub-Section 3] | 18" and Larger<br>[Sub-Section 4] |
| The Dickerson Group, Inc.             |                                       | Garney Companies, Inc.             | Garney Companies, Inc.            |
| GS Construction, Inc.                 |                                       | Reeves Young                       | Reeves Young                      |
| Heavy Constructors, Inc.              |                                       | Strack, Inc.                       | Strack, Inc.                      |
| John D Stephens                       | John D Stephens                       | Mid-South Builders, Inc.           | Mid-South Builders, Inc.          |
| Po Boys Plumbing, Inc.                |                                       | John D. Stephens, Inc.             | John D. Stephens, Inc.            |
| Site Engineering, Inc.                |                                       | Strickland & Sons Pipeline, Inc.   | Strickland & Sons Pipeline, Inc.  |
| Strack, Inc.                          | Strack, Inc.                          | Rockdale Pipeline                  | Rockdale Pipeline                 |
| Buckeye Construction                  | Buckeye Construction                  | Western Summit Constructors, Inc.  | Western Summit Constructors, Inc. |
| Garney Companies, Inc.                | Garney Companies, Inc.                | Heavy Constructors, Inc.           | Heavy Constructors, Inc.          |
| Heavy Constructors, Inc.              | Heavy Constructors, Inc.              | Buckeye Construction Company, Inc. |                                   |
| John H. Pruett Construction Co., Inc. | John H. Pruett Construction Co., Inc. | Portland Utilities Construction    |                                   |
| Mid-South Builders, Inc.              | Mid-South Builders, Inc.              | Site Engineering, Inc.             |                                   |
| Reeves Young                          | Reeves Young                          | G.P.'s Enterprises, Inc.           |                                   |
| Rockdale Pipeline, Inc.               | Rockdale Pipeline, Inc.               | M.V.P. Piping Company, Inc.        |                                   |
| Strickland & Sons Pipeline, Inc.      | Strickland & Sons Pipeline, Inc.      | Metals & Materials Engineers, LLC. |                                   |
| Western Summit Constructors, Inc.     | Western Summit Constructors, Inc.     | Robert M. Anderson, Inc.           |                                   |

|                                   |  |  |  |   |
|-----------------------------------|--|--|--|---|
| Astra Grading & Pipe, LLC.        |  | McCart Pipeline, Inc.                    |  |   |
| G.P.'s Enterprises, Inc.          |  | Layne Heavy Civil Inc.                   |  | Lane Heavy Civil Inc                      |
| Steele & Associates, Inc.         |  | CaJenn Construction & Rehabilitation Sys |  | CaJenn Construction & Rehabilitation Sys. |
| Tippins Contracting Company, Inc. |  | Total Development, Inc.                  |  |   |
| McCart Pipeline, Inc.             |  | Anderson Grading & Pipeline LLC          |  |   |
| MVP Piping Company                |  | RDJE, Inc.                               |  |   |
| Mack Jones Enterprises            |  |  |  |   |
| Todd Smith Grading, Inc.          |  |  |  |   |
| Contour Grading & Pipe            |  |  |  |   |
| Anderson Grading & Pipeline LLC   |  |  |  |   |
| RDJE, Inc.                        |  |  |  |   |

Last updated on 02.01.16

## Department of Water Resources

684 Winder Highway • Lawrenceville, GA 30045-5012  
678.376.6700 • www.gwinnetth2o.com



**TO:** Georgia Department of Transportation (GADOT)  
**FROM:** Gwinnett County Department of Water Resources (GCDWR)  
**SUBJECT:** **Pre-Approved Design Consultant for the DESIGN-BUILD MEMORANDUM OF UNDERSTANDING**  
**DATE:** February 3, 2017

### Service Category B:

Water Line, Sewer Line and Reuse Water Line Services

#### Firm:

1. **Atkins North America Inc.**  
Major Subs: None  
Minor Subs: New South, Willmer
2. **Barge, Waggoner, Sumner & Cannon, Inc.**  
Major Subs: None  
Minor Subs: Dewberry, United Consulting, Woolpert, Rochester & Associates, Cornerstone Design Services, Engineered Systems & Services, Willmer
3. **Engineering Strategies, Inc.**  
Major Subs: None  
Minor Subs: Hazen, BC, Atlanta Consulting Engineers, Engineering Technologies, United Consulting, CALYX Engineers & Consultants, Wolverton, LandAir Surveying, HB&P Surveying, Clemson Engineering Hydraulics, Amtec Surveying, Southern Cathodic Protection Co., S&S Engineers, Pond & Co.
4. **Precision Planning, Inc.**  
Major Subs: None  
Minor Subs: CH2M, UtiliSurvey, Nelson Environmental, United Consulting, Atlanta Consulting Engineers, Haines Gipson, Accent Creative Group
5. **Prime Engineering, Inc.**  
Major Subs: None  
Minor Subs: HJA, RHD Services, United Consulting, Vaness
6. **R.P. Weston Consulting, Inc.**  
Major Subs: Rindt-McDuff  
Minor Subs: Gresham Smith, McKim & Creed, AMEC Foster Wheeler

# **Georgia Department of Transportation**

## **Technical Provisions**

### **For**

## **Design-Build Agreement**

### **P.I. No. 110610**

## **I-85 Widening**

### **Attachment 6-9**

## **Jackson County Water & Sewage Authority MOU**

Georgia DOT Project: I-85 Widening  
GDOT P.I. # 110610 & 0013545

## DESIGN-BUILD MEMORANDUM OF UNDERSTANDING

between the  
Georgia Department of Transportation (hereafter the DEPARTMENT)  
and  
Jackson County Water & Sewage Authority (hereafter the OWNER)

---

Whereas GDOT, hereafter referred to as the DEPARTMENT proposes to undertake a design-build project hereafter referred to as PROJECT # 110610 & 0013545 to Widen and reconstruct lanes in each direction from Hamilton Mill Road to SR 211 within Gwinnett and Barrow County, Georgia and from SR 211 to US 129 within Barrow and Jackson County, Georgia by contract through competitive bidding procedures; and,

Whereas the DEPARTMENT will accomplish the PROJECT through a Design Consultant, Design Consultant Team and/or Contractor, hereafter referred to as CONTRACTOR; and the utility owner hereafter referred to as the OWNER, and

Whereas, where OWNER has property rights ("Prior Rights") at the location of the PROJECT, OWNER will provide written evidence as to said prior rights within the area and will provide written documentation of prior rights relating to any individual crossing or Utility Facility, at the location of the PROJECT; and

Whereas, OWNER acknowledges that, generally, absent a showing of prior rights, the costs of relocation, protection, removal, or adjustment performed by OWNER shall be borne by OWNER; and

Whereas, pursuant to O.C.G.A. § 32-6-170(b), DEPARTMENT is authorized to pay or participate in the payment of the costs of relocation, protection, or adjustment of OWNER'S facilities where DEPARTMENT has made the determination that (i) such payments are in the best interest of the public and necessary in order to expedite the staging of the design-build project; and (ii) the costs of the removal, relocation, protection, or adjustment of such facilities are included as part of the Contract between the Department and the Department's roadway contractor for the design-build project; and

### 1. Type of Utility

OWNER has the following utility facilities which may need to be adjusted or relocated as a result of the proposed PROJECT:

Type of facility or facilities of OWNER:

- ☒ Domestic water mains and distribution lines and associated appurtenances
- ☒ Sanitary Sewer facilities and/or Storm Drainage System
- ☐ Electrical Distribution (overhead and underground) wires, poles, etc.
- ☐ Electrical Transmission (overhead and underground) wires, poles, etc.
- ☐ Natural Gas Distribution Facilities (underground)
- ☐ Natural Gas Transmission Facilities (underground)
- ☐ Petroleum Pipeline (underground)
- ☐ Telecommunications facilities and equipment
- ☐ Cable TV facilities
- ☐ Street Lighting
- ☐ Internet Data Service

PI # 110610 & 0013545

Other Facilities (Description)

## 2. New Utility Facilities Proposed (Betterment)

OWNER desires the following to be installed as new additional facilities within the PROJECT. Insert here or attach a detailed description of proposed new additional utility installations:

None

## 3. Assignment of Responsibilities for Design and Construction

This MEMORANDUM OF UNDERSTANDING and the following shall serve as a *basis* for assignment of responsibilities and costs for the DEPARTMENT, CONTRACTOR and the OWNER to enter into a Standard Utility Agreement (SUA) or Contract Item Agreement (CIA), if necessary, with OWNER once the PROJECT is awarded to the CONTRACTOR. For a PROJECT implementation, GDOT will not have in its possession exact costing plans to be utilized to determine exact locations of the removal, relocation, protection, or adjustment. However, Overhead/Subsurface Utility Engineering (SUE) investigations plans exist providing the best information and signifying the layout of known existing facilities. Please use these plans for developing the final determination of services as indicated below. The CONTRACTOR developed plans will be provided to the OWNER after the design build project is awarded by GDOT which shall be used by the CONTRACTOR as the final basis for the SUA or CIA. **Betterment costs will be the OWNER'S responsibility.**

**NOTE: Water and Sewer Design and Construction relocation work put in the contract will automatically be accomplished by the DEPARTMENT'S CONTRACTOR. The UTILITY OWNER will still have design approval authority. (No Pre-Approved Contractor/Consultant List required, leave page 6 blank). If you are a Water & Sewer Utility and choose to put your relocation Design and Construction in the contract, please check Design and Construction under Option 2 under 3B. Owner's electing to perform their own design, at their own cost, please select design under 3C.**

OWNER hereby intends to:

- 3A. OWNER, at the DEPARTMENT'S cost through an Agreement, will provide the following services for the properties for which it has established prior rights (Check to signify):

|              |            |
|--------------|------------|
| Design       | <u>n/a</u> |
| Construction | <u>n/a</u> |

PI # 110610 0013545

- 3B. OWNER, at the CONTRACTOR'S cost, for any removal, relocation, protection, adjustment and/or design (Regardless of Prior Rights) will allow their facilities to be placed into the DEPARTMENT'S contract for the following services pursuant to O.C.G.A. § 32-6-170(b). The CONTRACTOR will add the removal, relocation, protection, materials, adjustment and/or design cost, excluding betterment, to the overall PROJECT's cost. (Check to signify):

**Option 1: OWNER wants the work to be performed by the OWNER's pre-approved Design Consultants and/or Contractors.**

Design n/a  
Construction n/a

**Option 2: OWNER wants the DEPARTMENT'S CONTRACTOR to perform the design and/or construction. (Check to signify):**

Design X  
Construction X

**If both are checked, please leave page 6 blank.**

As per this section, all work necessary for the removal, relocation, protection, or adjustment of the described utilities in accordance with the plans when approved shall be included in the project contract and accomplished by the CONTRACTOR except as follows (Check none or list any work items to be performed by the OWNER)

None n/a

Excluded Items n/a

Comments: n/a

- 3C. OWNER, at OWNER'S cost, will provide the following services (Check to signify):

Design n/a  
Construction n/a

**The following is hereby mutually agreed to and understood by both parties:**

1. The identification of existing facilities including preparation of Overhead/Subsurface Utility Engineering (SUE) investigations plans will be accomplished by the DEPARTMENT prior to award of the PROJECT and thereafter supplemented by the CONTRACTOR.
2. The CONTRACTOR shall coordinate reviews of the utility relocation information and obtain acceptance from the OWNER and DEPARTMENT when required. However; the OWNER shall apply for and obtain any required permits from the DEPARTMENT and perform any final design or proprietary design needed to administer its own relocation work if the work will not be included in the contract. If the preliminary plans indicate that no conflict exists, and the OWNER concurs with this information, the OWNER shall provide a letter of "no conflict" to the CONTRACTOR.
3. After award of the PROJECT, the CONTRACTOR will research any claimed compensable property interest for each OWNER claiming prior rights under section 3A and present the findings to the DEPARTMENT and OWNER for approval. The plans and estimate for the utility work shall be subject to approval of both the DEPARTMENT and the OWNER prior to construction. If the OWNER chooses to perform its own relocations and the OWNER holds no property interest as stated above; the OWNER shall confirm in writing that the OWNER will relocate its own facilities at no cost to the DEPARTMENT or the CONTRACTOR.
4. All construction engineering and contract supervision shall be the responsibility of the DEPARTMENT and the CONTRACTOR to ensure that all utility work included in the contract is accomplished in accordance with the PROJECT's plans and specifications. The CONTRACTOR will consult with the OWNER before authorizing any changes or deviations which affect the OWNER's facility.
5. For utility work included in the contract, the CONTRACTOR shall ensure that the design/construction and installation of the OWNER'S facilities is performed by a contractor/design consultant pre-approved/registered with both the DEPARTMENT and the OWNER. For any work included in the contract, excluding water and sewer, the OWNER will provide a list of pre-approved/registered contractors/design consultants on page 6 of the MOU.
6. For Utility work included in the contract, the OWNER or the OWNER's Consultant shall have the right to visit and inspect the work at any time and advise the CONTRACTOR and the DEPARTMENT'S Engineer of any observed discrepancies or potential issues. The DEPARTMENT agrees to notify the OWNER when all utility work is completed and ready for final inspection by the OWNER.
7. Upon Maintenance Acceptance or Final Acceptance of the utility work included in the contract and upon certification by the DEPARTMENT'S Engineer and the OWNER that the work has been completed in accordance with the plans and specifications, the OWNER will accept the adjusted, relocated, and additional facilities and will thereafter operate and maintain said facilities located within the PROJECT right of way subject to the DEPARTMENT'S Utility Accommodations Policy and Standards Manual (UAM), current edition" and any agreements in effect without further cost to the DEPARTMENT or its CONTRACTOR.
8. For the purpose of utility coordination, relocation and reimbursement matters, the OWNER shall cooperate with the CONTRACTOR in the same manner as if coordinating directly with the DEPARTMENT in accordance with the laws of the State of Georgia, the DEPARTMENT'S UAM and any agreements in effect between the DEPARTMENT and OWNER. The OWNER agrees to cooperate in good faith with the CONTRACTOR and to respond to all requests for information or meetings required to reach a resolution of any disputed items.
9. All Utility work included in the PROJECT's contract and Utility work completed by the OWNER that is reimbursed by the DEPARTMENT through an agreement shall be in accordance with the BUY AMERICA requirements of the Federal regulations (23 U.S.C. 313 and 23 CFR 635.410) all manufacturing processes for

steel and iron products or predominantly of steel or iron (at least 90% steel or iron content) furnished for permanent incorporation into the work on this project shall occur in the United States. The only exception to this requirement is the production of pig iron and the processing, pelletizing and reduction of iron ore, which may occur in another country. Other than these exceptions, all melting, rolling, extruding, machining, bending, grinding, drilling, coating, etc. must occur in the United States.

- a. Products of steel include, but are not limited to, such products as structural steel piles, reinforcing steel, structural plate, steel culverts, and guardrail steel supports for signs, signals and luminaires. Products of iron include, but are not limited to, such products as cast iron frames and grates and ductile iron pipe. Coatings include, but are not limited to, the applications of epoxy, galvanizing and paint. The coating material is not limited to this clause, only the application process.
- b. A Certificate of Compliance shall be furnished for steel and iron products as part of the backup information with the billing. The form for this certification entitled "Buy America Certificate of Compliance" is attached to this agreement as "Exhibit A." Records to be maintained by the Developer for this certification shall include a signed mill test report and a signed certification by each supplier, distributor, fabricator, and manufacturer that has handled the steel or iron product affirming that every process, including the application of a coating, performed on the steel or iron product has been carried out in the United States of America, except as allowed by this Section. The lack of these certifications will be justification for rejection of the steel and/or iron product or nonpayment of the work.
- c. The requirements of said law and regulations do not prevent the use of miscellaneous steel or iron components, subcomponents and hardware necessary to encase, assemble and construct the above products, manufactured products that are not predominantly steel or iron or a minimal use of foreign steel and iron materials if the cost of such materials used does not exceed one-tenth of one percent (0.1%) of the total contract price or \$2,500.00, whichever is greater.

The Memorandum of Understanding will be incorporated into the project contract by reference or Exhibit.

APPROVED FOR THE OWNER BY:

Eric Klerk  
(Signature)

03/02/17  
(Date)

Eric Klerk, Authority Manager

(Title)

APPROVED FOR THE DEPARTMENT BY:

Patricia Sk  
(Signature)

4/13/17  
(Date)

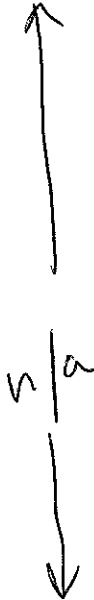
STATE UTILITIES ADMINISTRATOR

### Pre-Approved Contractor List

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:



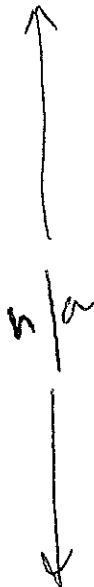
**Please provide a minimum of three.**

### Pre-Approved Design Consultant List

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:





# **Georgia Department of Transportation**

## **Technical Provisions For Design-Build Agreement P.I. No. 110610**

### **I-85 Widening**

#### **Attachment 6-10**

#### **Jackson EMC MOU**

Georgia DOT Project: I-85 widening  
 GDOT P.I. 0110610 & 0013545

**DESIGN-BUILD**  
**MEMORANDUM OF UNDERSTANDING**  
 between the  
 Georgia Department of Transportation (hereafter the DEPARTMENT)  
 and  
 Jackson EMC (hereafter the OWNER)

Whereas GDOT, hereafter referred to as the DEPARTMENT proposes to undertake a design-build project hereafter referred to as PROJECT to as PROJECT # 110610 & 0013545 to Widen and reconstruct lanes in each direction from Hamilton Mill Road to SR 211 within Gwinnett and Barrow County, Georgia, and from SR 211 to UA 129 within Barrow and Jackson County, Georgia by contract through competitive bidding procedures; and,

Whereas the DEPARTMENT will accomplish the PROJECT through a Design Consultant, Design Consultant Team and/or Contractor, hereafter referred to as CONTRACTOR; and the utility owner hereafter referred to as the OWNER, and

Whereas, where OWNER has property rights ("Prior Rights") at the location of the PROJECT, OWNER will provide written evidence as to said prior rights within the area and will provide written documentation of prior rights relating to any individual crossing or Utility Facility, at the location of the PROJECT; and

Whereas, OWNER acknowledges that, generally, absent a showing of prior rights, the costs of relocation, protection, removal, or adjustment performed by OWNER shall be borne by OWNER; and

Whereas, pursuant to O.C.G.A. § 32-6-170(b), DEPARTMENT is authorized to pay or participate in the payment of the costs of relocation, protection, or adjustment of OWNER'S facilities where DEPARTMENT has made the determination that (i) such payments are in the best interest of the public and necessary in order to expedite the staging of the design-build project; and (ii) the costs of the removal, relocation, protection, or adjustment of such facilities are included as part of the Contract between the Department and the Department's roadway contractor for the design-build project; and

**1. Type of Utility**

OWNER has the following utility facilities which may need to be adjusted or relocated as a result of the proposed PROJECT:

Type of facility or facilities of OWNER:

- ☐ Domestic water mains and distribution lines and associated appurtenances
- ☐ Sanitary Sewer facilities and/or Storm Drainage System
- ☒ Electrical Distribution (overhead and underground) wires, poles, etc.
- ☐ Electrical Transmission (overhead and underground) wires, poles, etc.
- ☐ Natural Gas Distribution Facilities (underground)
- ☐ Natural Gas Transmission Facilities (underground)
- ☐ Petroleum Pipeline (underground)
- ☒ Telecommunications facilities and equipment
- ☐ Cable TV facilities
- ☐ Street Lighting
- ☐ Internet Data Service
- ☐ Other Facilities (Description) \_\_\_\_\_

## 2. New Utility Facilities Proposed (Betterment)

OWNER desires the following to be installed as new additional facilities within the PROJECT. Insert here or attach a detailed description of proposed new additional utility installations:

---

---

## 3. Assignment of Responsibilities for Design and Construction

This MEMORANDUM OF UNDERSTANDING and the following shall serve as a *basis* for assignment of responsibilities and costs for the DEPARTMENT, CONTRACTOR and the OWNER to enter into a Standard Utility Agreement (SUA) or Contract Item Agreement (CIA), if necessary, with OWNER once the PROJECT is awarded to the CONTRACTOR. For a PROJECT implementation, GDOT will not have in its possession exact costing plans to be utilized to determine exact locations of the removal, relocation, protection, or adjustment. However, Overhead/Subsurface Utility Engineering (SUE) investigations plans exist providing the best information and signifying the layout of known existing facilities. Please use these plans for developing the final determination of services as indicated below. The CONTRACTOR developed plans will be provided to the OWNER after the design build project is awarded by GDOT which shall be used by the CONTRACTOR as the final basis for the SUA or CIA. **Betterment costs will be the OWNER'S responsibility.**

**NOTE: Water and Sewer Design and Construction relocation work put in the contract will automatically be accomplished by the DEPARTMENT'S CONTRACTOR. The UTILITY OWNER will still have design approval authority. (No Pre-Approved Contractor/Consultant List required, leave page 6 blank). If you are a Water & Sewer Utility and choose to put your relocation Design and Construction in the contract, please check Design and Construction under Option 2 under 3B. Owner's electing to perform their own design, at their own cost, please select design under 3C.**

OWNER hereby intends to:

- 3A. OWNER, at the DEPARTMENT'S cost through an Agreement, will provide the following services for the properties for which it has established prior rights (Check to signify):

Design \_\_\_\_\_  
Construction \_\_\_\_\_

- 3B. OWNER, at the CONTRACTOR'S cost, for any removal, relocation, protection, adjustment and/or design (Regardless of Prior Rights) will allow their facilities to be placed into the DEPARTMENT'S contract for the following services pursuant to O.C.G.A. § 32-6-170(b). The CONTRACTOR will add the removal, relocation, protection, materials, adjustment and/or design cost, excluding betterment, to the overall PROJECT's cost. (Check to signify):

**Option 1: OWNER wants the work to be performed by the OWNER's pre-approved Design Consultants and/or Contractors.**

Design \_\_\_\_\_  
Construction   X  

**Option 2: OWNER wants the DEPARTMENT'S CONTRACTOR to perform the design and/or construction. (Check to signify):**

Design \_\_\_\_\_  
Construction \_\_\_\_\_ **If both are checked, please leave page 6 blank.**

As per this section, all work necessary for the removal, relocation, protection, or adjustment of the described utilities in accordance with the plans when approved shall be included in the project contract and accomplished by the CONTRACTOR except as follows (Check none or list any work items to be performed by the OWNER)

None \_\_\_\_\_

Excluded Items \_\_\_\_\_

\_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- 3C. OWNER, at OWNER'S cost, will provide the following services (Check to signify):

Design   X    
Construction \_\_\_\_\_

**The following is hereby mutually agreed to and understood by both parties:**

1. The identification of existing facilities including preparation of Overhead/Subsurface Utility Engineering (SUE) investigations plans will be accomplished by the DEPARTMENT prior to award of the PROJECT and thereafter supplemented by the CONTRACTOR.
2. The CONTRACTOR shall coordinate reviews of the utility relocation information and obtain acceptance from the OWNER and DEPARTMENT when required. However; the OWNER shall apply for and obtain any required permits from the DEPARTMENT and perform any final design or proprietary design needed to administer its own relocation work if the work will not be included in the contract. If the preliminary plans indicate that no conflict exists, and the OWNER concurs with this information, the OWNER shall provide a letter of "no conflict" to the CONTRACTOR.
3. After award of the PROJECT, the CONTRACTOR will research any claimed compensable property interest for each OWNER claiming prior rights under section 3A and present the findings to the DEPARTMENT and OWNER for approval. The plans and estimate for the utility work shall be subject to approval of both the DEPARTMENT and the OWNER prior to construction. If the OWNER chooses to perform its own relocations and the OWNER holds no property interest as stated above; the OWNER shall confirm in writing that the OWNER will relocate its own facilities at no cost to the DEPARTMENT or the CONTRACTOR.
4. All construction engineering and contract supervision shall be the responsibility of the DEPARTMENT and the CONTRACTOR to ensure that all utility work included in the contract is accomplished in accordance with the PROJECT's plans and specifications. The CONTRACTOR will consult with the OWNER before authorizing any changes or deviations which affect the OWNER's facility.
5. For utility work included in the contract, the CONTRACTOR shall ensure that the design/construction and installation of the OWNER'S facilities is performed by a contractor/design consultant pre-approved/registered with both the DEPARTMENT and the OWNER. For any work included in the contract, excluding water and sewer, the OWNER will provide a list of pre-approved/registered contractors/design consultants on page 6 of the MOU.
6. For Utility work included in the contract, the OWNER or the OWNER's Consultant shall have the right to visit and inspect the work at any time and advise the CONTRACTOR and the DEPARTMENT'S Engineer of any observed discrepancies or potential issues. The DEPARTMENT agrees to notify the OWNER when all utility work is completed and ready for final inspection by the OWNER.
7. Upon Maintenance Acceptance or Final Acceptance of the utility work included in the contract and upon certification by the DEPARTMENT'S Engineer and the OWNER that the work has been completed in accordance with the plans and specifications, the OWNER will accept the adjusted, relocated, and additional facilities and will thereafter operate and maintain said facilities located within the PROJECT right of way subject to the DEPARTMENT'S Utility Accommodations Policy and Standards Manual (UAM), current edition" and any agreements in effect without further cost to the DEPARTMENT or its CONTRACTOR.
8. For the purpose of utility coordination, relocation and reimbursement matters, the OWNER shall cooperate with the CONTRACTOR in the same manner as if coordinating directly with the DEPARTMENT in accordance with the laws of the State of Georgia, the DEPARTMENT'S UAM and any agreements in effect between the DEPARTMENT and OWNER. The OWNER agrees to cooperate in good faith with the CONTRACTOR and to respond to all requests for information or meetings required to reach a resolution of any disputed items.
9. All Utility work included in the PROJECT's contract and Utility work completed by the OWNER that is reimbursed by the DEPARTMENT through an agreement shall be in accordance with the BUY AMERICA requirements of the Federal regulations (23 U.S.C. 313 and 23 CFR 635.410) all manufacturing processes for steel and iron products or predominantly of steel or iron (at least 90% steel or iron content) furnished for

permanent incorporation into the work on this project shall occur in the United States. The only exception to this requirement is the production of pig iron and the processing, pelletizing and reduction of iron ore, which may occur in another country. Other than there exceptions, all melting, rolling, extruding, machining, bending, grinding, drilling, coating, etc. must occur in the United States.

- a. Products of steel include, but are not limited to, such products as structural steel piles, reinforcing steel, structural plate, steel culverts, and guardrail steel supports for signs, signals and luminaires. Products of iron include, but are not limited to, such products as cast iron frames and grates and ductile iron pipe. Coatings include, but are not limited to, the applications of epoxy, galvanizing and paint. The coating material is not limited to this clause, only the application process.
- b. A Certificate of Compliance shall be furnished for steel and iron products as part of the backup information with the billing. The form for this certification entitled "Buy America Certificate of Compliance" is attached to this agreement as "Exhibit A." Records to be maintained by the Developer for this certification shall include a signed mill test report and a signed certification by each supplier, distributor, fabricator, and manufacturer that has handled the steel or iron product affirming that every process, including the application of a coating, performed on the steel or iron product has been carried out in the United States of America, except as allowed by this Section. The lack of these certifications will be justification for rejection of the steel and/or iron product or nonpayment of the work.
- c. The requirements of said law and regulations do not prevent the use of miscellaneous steel or iron components, subcomponents and hardware necessary to encase, assemble and construct the above products, manufactured products that are not predominantly steel or iron or a minimal use of foreign steel and iron materials if the cost of such materials used does not exceed one-tenth of one percent (0.1%) of the total contract price or \$2,500.00, whichever is greater.

The Memorandum of Understanding will be incorporated into the project contract by reference or Exhibit.

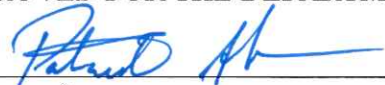
APPROVED FOR THE OWNER BY:

  
(Signature)

3-15-17  
(Date)

\_\_\_\_\_  
(Title)

APPROVED FOR THE DEPARTMENT BY:

  
(Signature)

4/13/17  
(Date)

STATE UTILITIES ADMINISTRATOR

### **Pre-Approved Contractor List**

Company Name: Pike Electric - Overhead Contractors  
Address: P.O. Box 868, 100 Pike Way, Mount Airy, North Carolina 27030  
Phone: 770-601-2363  
Contact Person: Darrell Harrison  
E-Mail:

Company Name: Utility Lines Construction Services, Inc.  
Address: Region 110, 276 First Street, Forest Park, GA 30297  
Phone: (Cell) 404-472-4601, 770-530-5873  
Contact Person: Jamie Caldwell  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

**Note:**

Jackson EMC only has these two Overhead contractors under contract.

**Please provide a minimum of three.**

### **Pre-Approved Design Consultant List**

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

(770) 963-6166  
(706) 367-6235 Fax  
[www.jacksonemc.com](http://www.jacksonemc.com)

3/15/2017

RE: PI NO. 110610, 0013545, DB I-85 Widening Gwinnett, Barrow and Jackson Counties -  
Jackson EMC Letter for Limited Contractors List

Dear Mr. Allen Ferguson

Pike Electric – Overhead Contractors and Utility Lines Construction Services, Inc. are the only  
contractors under contract to work on our facilities. Thanks

*Michael D. Brown*  
*Jackson EMC*  
*Field Engineer II*  
*Office: (706) 367-6202*  
*Cell: (770) 601-7994*  
*Email: [mbrown@jacksonemc.com](mailto:mbrown@jacksonemc.com)*

# **Georgia Department of Transportation**

## **Technical Provisions**

### **For**

## **Design-Build Agreement**

### **P.I. No. 110610**

## **I-85 Widening**

### **Attachment 6-11**

## **City of Jefferson MOU**

Georgia DOT Project: I-85 widening  
GDOT P.I. 0110610 & 0013545

**DESIGN-BUILD  
MEMORANDUM OF UNDERSTANDING**

between the  
Georgia Department of Transportation (hereafter the DEPARTMENT)  
and  
**The City of Jefferson, Georgia**  
(hereafter the OWNER)

---

Whereas GDOT, hereafter referred to as the DEPARTMENT proposes to undertake a design-build project hereafter referred to as PROJECT to as PROJECT # 110610 & 0013545 to Widen and reconstruct lanes in each direction from Hamilton Mill Road to SR 211 within Gwinnett and Barrow County, Georgia, and from SR 211 to UA 129 within Barrow and Jackson County, Georgia by contract through competitive bidding procedures; and,

Whereas the DEPARTMENT will accomplish the PROJECT through a Design Consultant, Design Consultant Team and/or Contractor, hereafter referred to as CONTRACTOR; and the utility owner hereafter referred to as the OWNER, and

Whereas, where OWNER has property rights ("Prior Rights") at the location of the PROJECT, OWNER will provide written evidence as to said prior rights within the area and will provide written documentation of prior rights relating to any individual crossing or Utility Facility, at the location of the PROJECT; and

Whereas, OWNER acknowledges that, generally, absent a showing of prior rights, the costs of relocation, protection, removal, or adjustment performed by OWNER shall be borne by OWNER; and

Whereas, pursuant to O.C.G.A. § 32-6-170(b), DEPARTMENT is authorized to pay or participate in the payment of the costs of relocation, protection, or adjustment of OWNER'S facilities where DEPARTMENT has made the determination that (i) such payments are in the best interest of the public and necessary in order to expedite the staging of the design-build project; and (ii) the costs of the removal, relocation, protection, or adjustment of such facilities are included as part of the Contract between the Department and the Department's roadway contractor for the design-build project; and

**1. Type of Utility**

OWNER has the following utility facilities which may need to be adjusted or relocated as a result of the proposed PROJECT:

Type of facility or facilities of OWNER:

- ☒ Domestic water mains and distribution lines and associated appurtenances
- ☒ Sanitary Sewer facilities and/or Storm Drainage System
- ☐ Electrical Distribution (overhead and underground) wires, poles, etc.
- ☐ Electrical Transmission (overhead and underground) wires, poles, etc.
- ☐ Natural Gas Distribution Facilities (underground)
- ☐ Natural Gas Transmission Facilities (underground)
- ☐ Petroleum Pipeline (underground)
- ☐ Telecommunications facilities and equipment
- ☐ Cable TV facilities
- ☐ Street Lighting
- ☐ Internet Data Service

Other Facilities (Description) \_\_\_\_\_

## 2. New Utility Facilities Proposed (Betterment)

OWNER desires the following to be installed as new additional facilities within the PROJECT.  
Insert here or attach a detailed description of proposed new additional utility installations:

\_\_\_\_\_

\_\_\_\_\_

## 3. Assignment of Responsibilities for Design and Construction

This MEMORANDUM OF UNDERSTANDING and the following shall serve as a *basis* for assignment of responsibilities and costs for the DEPARTMENT, CONTRACTOR and the OWNER to enter into a Standard Utility Agreement (SUA) or Contract Item Agreement (CIA), if necessary, with OWNER once the PROJECT is awarded to the CONTRACTOR. For a PROJECT implementation, GDOT will not have in its possession exact costing plans to be utilized to determine exact locations of the removal, relocation, protection, or adjustment. However, Overhead/Subsurface Utility Engineering (SUE) investigations plans exist providing the best information and signifying the layout of known existing facilities. Please use these plans for developing the final determination of services as indicated below. The CONTRACTOR developed plans will be provided to the OWNER after the design build project is awarded by GDOT which shall be used by the CONTRACTOR as the final basis for the SUA or CIA. **Betterment costs will be the OWNER'S responsibility.**

**NOTE: Water and Sewer Design and Construction relocation work put in the contract will automatically be accomplished by the DEPARTMENT'S CONTRACTOR. The UTILITY OWNER will still have design approval authority. (No Pre-Approved Contractor/Consultant List required, leave page 6 blank). If you are a Water & Sewer Utility and choose to put your relocation Design and Construction in the contract, please check Design and Construction under Option 2 under 3B. Owner's electing to perform their own design, at their own cost, please select design under 3C.**

OWNER hereby intends to:

- 3A. OWNER, at the DEPARTMENT'S cost through an Agreement, will provide the following services for the properties for which it has established prior rights (Check to signify):

Design \_\_\_\_\_  
Construction \_\_\_\_\_

- 3B. OWNER, at the CONTRACTOR'S cost, for any removal, relocation, protection, adjustment and/or design (Regardless of Prior Rights) will allow their facilities to be placed into the DEPARTMENT'S contract for the following services pursuant to O.C.G.A. § 32-6-170(b). The CONTRACTOR will add the removal, relocation, protection, materials, adjustment and/or design cost, excluding betterment, to the overall PROJECT's cost. (Check to signify):

**Option 1: OWNER wants the work to be performed by the OWNER's pre-approved Design Consultants and/or Contractors.**

Design \_\_\_\_\_  
Construction \_\_\_\_\_

**Option 2: OWNER wants the DEPARTMENT'S CONTRACTOR to perform the design and/or construction. (Check to signify):**

Design   X    
Construction   X  

**If both are checked, please leave page 6 blank.**

As per this section, all work necessary for the removal, relocation, protection, or adjustment of the described utilities in accordance with the plans when approved shall be included in the project contract and accomplished by the CONTRACTOR except as follows (Check none or list any work items to be performed by the OWNER)

None   X  

Excluded Items \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- 3C. OWNER, at OWNER'S cost, will provide the following services (Check to signify):

Design \_\_\_\_\_  
Construction \_\_\_\_\_

**The following is hereby mutually agreed to and understood by both parties:**

1. The identification of existing facilities including preparation of Overhead/Subsurface Utility Engineering (SUE) investigations plans will be accomplished by the DEPARTMENT prior to award of the PROJECT and thereafter supplemented by the CONTRACTOR.
2. The CONTRACTOR shall coordinate reviews of the utility relocation information and obtain acceptance from the OWNER and DEPARTMENT when required. However; the OWNER shall apply for and obtain any required permits from the DEPARTMENT and perform any final design or proprietary design needed to administer its own relocation work if the work will not be included in the contract. If the preliminary plans indicate that no conflict exists, and the OWNER concurs with this information, the OWNER shall provide a letter of "no conflict" to the CONTRACTOR.
3. After award of the PROJECT, the CONTRACTOR will research any claimed compensable property interest for each OWNER claiming prior rights under section 3A and present the findings to the DEPARTMENT and OWNER for approval. The plans and estimate for the utility work shall be subject to approval of both the DEPARTMENT and the OWNER prior to construction. If the OWNER chooses to perform its own relocations and the OWNER holds no property interest as stated above; the OWNER shall confirm in writing that the OWNER will relocate its own facilities at no cost to the DEPARTMENT or the CONTRACTOR.
4. All construction engineering and contract supervision shall be the responsibility of the DEPARTMENT and the CONTRACTOR to ensure that all utility work included in the contract is accomplished in accordance with the PROJECT's plans and specifications. The CONTRACTOR will consult with the OWNER before authorizing any changes or deviations which affect the OWNER's facility.
5. For utility work included in the contract, the CONTRACTOR shall ensure that the design/construction and installation of the OWNER'S facilities is performed by a contractor/design consultant pre-approved/registered with both the DEPARTMENT and the OWNER. For any work included in the contract, excluding water and sewer, the OWNER will provide a list of pre-approved/registered contractors/design consultants on page 6 of the MOU.
6. For Utility work included in the contract, the OWNER or the OWNER's Consultant shall have the right to visit and inspect the work at any time and advise the CONTRACTOR and the DEPARTMENT'S Engineer of any observed discrepancies or potential issues. The DEPARTMENT agrees to notify the OWNER when all utility work is completed and ready for final inspection by the OWNER.
7. Upon Maintenance Acceptance or Final Acceptance of the utility work included in the contract and upon certification by the DEPARTMENT'S Engineer and the OWNER that the work has been completed in accordance with the plans and specifications, the OWNER will accept the adjusted, relocated, and additional facilities and will thereafter operate and maintain said facilities located within the PROJECT right of way subject to the DEPARTMENT'S Utility Accommodations Policy and Standards Manual (UAM), current edition" and any agreements in effect without further cost to the DEPARTMENT or its CONTRACTOR.
8. For the purpose of utility coordination, relocation and reimbursement matters, the OWNER shall cooperate with the CONTRACTOR in the same manner as if coordinating directly with the DEPARTMENT in accordance with the laws of the State of Georgia, the DEPARTMENT'S UAM and any agreements in effect between the DEPARTMENT and OWNER. The OWNER agrees to cooperate in good faith with the CONTRACTOR and to respond to all requests for information or meetings required to reach a resolution of any disputed items.
9. All Utility work included in the PROJECT's contract and Utility work completed by the OWNER that is reimbursed by the DEPARTMENT through an agreement shall be in accordance with the BUY AMERICA requirements of the Federal regulations (23 U.S.C. 313 and 23 CFR 635.410) all manufacturing processes for

steel and iron products or predominantly of steel or iron (at least 90% steel or iron content) furnished for permanent incorporation into the work on this project shall occur in the United States. The only exception to this requirement is the production of pig iron and the processing, pelletizing and reduction of iron ore, which may occur in another country. Other than there exceptions, all melting, rolling, extruding, machining, bending, grinding, drilling, coating, etc. must occur in the United States.

- a. Products of steel include, but are not limited to, such products as structural steel piles, reinforcing steel, structural plate, steel culverts, and guardrail steel supports for signs, signals and luminaires. Products of iron include, but are not limited to, such products as cast iron frames and grates and ductile iron pipe. Coatings include, but are not limited to, the applications of epoxy, galvanizing and paint. The coating material is not limited to this clause, only the application process.
- b. A Certificate of Compliance shall be furnished for steel and iron products as part of the backup information with the billing. The form for this certification entitled "Buy America Certificate of Compliance" is attached to this agreement as "Exhibit A." Records to be maintained by the Developer for this certification shall include a signed mill test report and a signed certification by each supplier, distributor, fabricator, and manufacturer that has handled the steel or iron product affirming that every process, including the application of a coating, performed on the steel or iron product has been carried out in the United States of America, except as allowed by this Section. The lack of these certifications will be justification for rejection of the steel and/or iron product or nonpayment of the work.
- c. The requirements of said law and regulations do not prevent the use of miscellaneous steel or iron components, subcomponents and hardware necessary to encase, assemble and construct the above products, manufactured products that are not predominantly steel or iron or a minimal use of foreign steel and iron materials if the cost of such materials used does not exceed one-tenth of one percent (0.1%) of the total contract price or \$2,500.00, whichever is greater.

The Memorandum of Understanding will be incorporated into the project contract by reference or Exhibit.

APPROVED FOR THE OWNER BY:

  
\_\_\_\_\_  
(Signature)

MARCH 7, 2017  
(Date)

PUBLIC WORKS DIRECTOR  
(Title)

APPROVED FOR THE DEPARTMENT BY:

  
\_\_\_\_\_  
(Signature)

4/13/17  
(Date)

STATE UTILITIES ADMINISTRATOR

### **Pre-Approved Contractor List**

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

**Please provide a minimum of three.**

### **Pre-Approved Design Consultant List**

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:



# **Georgia Department of Transportation**

## **Technical Provisions**

### **For**

## **Design-Build Agreement**

### **P.I. No. 110610**

## **I-85 Widening**

### **Attachment 6-12**

## **Liberty Utilities MOU**

Georgia DOT Project: I-85 widening  
GDOT P.I. 0110610 & 0013545

## DESIGN-BUILD MEMORANDUM OF UNDERSTANDING

between the

Georgia Department of Transportation (hereafter the DEPARTMENT)

and

Liberty Utilities (Peach State Natural Gas) Corp (hereafter the OWNER)

Whereas GDOT, hereafter referred to as the DEPARTMENT proposes to undertake a design-build project hereafter referred to as PROJECT to as PROJECT # 110610 & 0013545 to Widen and reconstruct lanes in each direction from Hamilton Mill Road to SR 211 within Gwinnett and Barrow County, Georgia, and from SR 211 to UA 129 within Barrow and Jackson County, Georgia by contract through competitive bidding procedures; and,

Whereas the DEPARTMENT will accomplish the PROJECT through a Design Consultant, Design Consultant Team and/or Contractor, hereafter referred to as CONTRACTOR; and the utility owner hereafter referred to as the OWNER, and

Whereas, where OWNER has property rights ("Prior Rights") at the location of the PROJECT, OWNER will provide written evidence as to said prior rights within the area and will provide written documentation of prior rights relating to any individual crossing or Utility Facility, at the location of the PROJECT; and

Whereas, OWNER acknowledges that, generally, absent a showing of prior rights, the costs of relocation, protection, removal, or adjustment performed by OWNER shall be borne by OWNER; and

Whereas, pursuant to O.C.G.A. § 32-6-170(b), DEPARTMENT is authorized to pay or participate in the payment of the costs of relocation, protection, or adjustment of OWNER'S facilities where DEPARTMENT has made the determination that (i) such payments are in the best interest of the public and necessary in order to expedite the staging of the design-build project; and (ii) the costs of the removal, relocation, protection, or adjustment of such facilities are included as part of the Contract between the Department and the Department's roadway contractor for the design-build project; and

### 1. Type of Utility

OWNER has the following utility facilities which may need to be adjusted or relocated as a result of the proposed PROJECT:

Type of facility or facilities of OWNER:

- ☐ Domestic water mains and distribution lines and associated appurtenances
- ☐ Sanitary Sewer facilities and/or Storm Drainage System
- ☐ Electrical Distribution (overhead and underground) wires, poles, etc.
- ☐ Electrical Transmission (overhead and underground) wires, poles, etc.
- ☒ Natural Gas Distribution Facilities (underground)
- ☒ Natural Gas Transmission Facilities (underground)
- ☐ Petroleum Pipeline (underground)
- ☐ Telecommunications facilities and equipment
- ☐ Cable TV facilities
- ☐ Street Lighting
- ☐ Internet Data Service
- ☐ Other Facilities (Description) \_\_\_\_\_

## 2. New Utility Facilities Proposed (Betterment)

OWNER desires the following to be installed as new additional facilities within the PROJECT.  
Insert here or attach a detailed description of proposed new additional utility installations:

---

---

## 3. Assignment of Responsibilities for Design and Construction

This MEMORANDUM OF UNDERSTANDING and the following shall serve as a *basis* for assignment of responsibilities and costs for the DEPARTMENT, CONTRACTOR and the OWNER to enter into a Standard Utility Agreement (SUA) or Contract Item Agreement (CIA), if necessary, with OWNER once the PROJECT is awarded to the CONTRACTOR. For a PROJECT implementation, GDOT will not have in its possession exact costing plans to be utilized to determine exact locations of the removal, relocation, protection, or adjustment. However, Overhead/Subsurface Utility Engineering (SUE) investigations plans exist providing the best information and signifying the layout of known existing facilities. Please use these plans for developing the final determination of services as indicated below. The CONTRACTOR developed plans will be provided to the OWNER after the design build project is awarded by GDOT which shall be used by the CONTRACTOR as the final basis for the SUA or CIA. **Betterment costs will be the OWNER'S responsibility.**

**NOTE: Water and Sewer Design and Construction relocation work put in the contract will automatically be accomplished by the DEPARTMENT'S CONTRACTOR. The UTILITY OWNER will still have design approval authority. (No Pre-Approved Contractor/Consultant List required, leave page 6 blank). If you are a Water & Sewer Utility and choose to put your relocation Design and Construction in the contract, please check Design and Construction under Option 2 under 3B. Owner's electing to perform their own design, at their own cost, please select design under 3C.**

OWNER hereby intends to:

- 3A. OWNER, at the DEPARTMENT'S cost through an Agreement, will provide the following services for the properties for which it has established prior rights (Check to signify):

Design        ☐  
Construction ☐

- 3B. OWNER, at the CONTRACTOR'S cost, for any removal, relocation, protection, adjustment and/or design (Regardless of Prior Rights) will allow their facilities to be placed into the DEPARTMENT'S contract for the following services pursuant to O.C.G.A. § 32-6-170(b). The CONTRACTOR will add the removal, relocation, protection, materials, adjustment and/or design cost, excluding betterment, to the overall PROJECT's cost. (Check to signify):

**Option 1: OWNER wants the work to be performed by the OWNER's pre-approved Design Consultants and/or Contractors.**

Design \_\_\_\_\_  
Construction \_\_\_\_\_

**Option 2: OWNER wants the DEPARTMENT'S CONTRACTOR to perform the design and/or construction. (Check to signify):**

Design \_\_\_\_\_  
Construction \_\_\_\_\_ **If both are checked, please leave page 6 blank.**

As per this section, all work necessary for the removal, relocation, protection, or adjustment of the described utilities in accordance with the plans when approved shall be included in the project contract and accomplished by the CONTRACTOR except as follows (Check none or list any work items to be performed by the OWNER)

None \_\_\_\_\_

Excluded Items \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Comments: Liberty Utilities has a planned replacement and betterment project for this area. Liberty Utilities will coordinate the construction and installation of the new natural gas facilities with the selected GDOT Contractor.

- 3C. OWNER, at OWNER'S cost, will provide the following services (Check to signify):

Design \_\_\_\_\_ x \_\_\_\_\_  
Construction \_\_\_\_\_ x \_\_\_\_\_

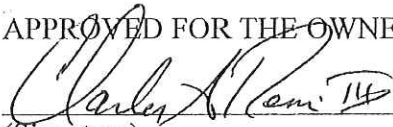
**The following is hereby mutually agreed to and understood by both parties:**

1. The identification of existing facilities including preparation of Overhead/Subsurface Utility Engineering (SUE) investigations plans will be accomplished by the DEPARTMENT prior to award of the PROJECT and thereafter supplemented by the CONTRACTOR.
2. The CONTRACTOR shall coordinate reviews of the utility relocation information and obtain acceptance from the OWNER and DEPARTMENT when required. However; the OWNER shall apply for and obtain any required permits from the DEPARTMENT and perform any final design or proprietary design needed to administer its own relocation work if the work will not be included in the contract. If the preliminary plans indicate that no conflict exists, and the OWNER concurs with this information, the OWNER shall provide a letter of "no conflict" to the CONTRACTOR.
3. After award of the PROJECT, the CONTRACTOR will research any claimed compensable property interest for each OWNER claiming prior rights under section 3A and present the findings to the DEPARTMENT and OWNER for approval. The plans and estimate for the utility work shall be subject to approval of both the DEPARTMENT and the OWNER prior to construction. If the OWNER chooses to perform its own relocations and the OWNER holds no property interest as stated above; the OWNER shall confirm in writing that the OWNER will relocate its own facilities at no cost to the DEPARTMENT or the CONTRACTOR.
4. All construction engineering and contract supervision shall be the responsibility of the DEPARTMENT and the CONTRACTOR to ensure that all utility work included in the contract is accomplished in accordance with the PROJECT's plans and specifications. The CONTRACTOR will consult with the OWNER before authorizing any changes or deviations which affect the OWNER's facility.
5. For utility work included in the contract, the CONTRACTOR shall ensure that the design/construction and installation of the OWNER'S facilities is performed by a contractor/design consultant pre-approved/registered with both the DEPARTMENT and the OWNER. For any work included in the contract, excluding water and sewer, the OWNER will provide a list of pre-approved/registered contractors/design consultants on page 6 of the MOU.
6. For Utility work included in the contract, the OWNER or the OWNER's Consultant shall have the right to visit and inspect the work at any time and advise the CONTRACTOR and the DEPARTMENT'S Engineer of any observed discrepancies or potential issues. The DEPARTMENT agrees to notify the OWNER when all utility work is completed and ready for final inspection by the OWNER.
7. Upon Maintenance Acceptance or Final Acceptance of the utility work included in the contract and upon certification by the DEPARTMENT'S Engineer and the OWNER that the work has been completed in accordance with the plans and specifications, the OWNER will accept the adjusted, relocated, and additional facilities and will thereafter operate and maintain said facilities located within the PROJECT right of way subject to the DEPARTMENT'S Utility Accommodations Policy and Standards Manual (UAM), current edition" and any agreements in effect without further cost to the DEPARTMENT or its CONTRACTOR.
8. For the purpose of utility coordination, relocation and reimbursement matters, the OWNER shall cooperate with the CONTRACTOR in the same manner as if coordinating directly with the DEPARTMENT in accordance with the laws of the State of Georgia, the DEPARTMENT'S UAM and any agreements in effect between the DEPARTMENT and OWNER. The OWNER agrees to cooperate in good faith with the CONTRACTOR and to respond to all requests for information or meetings required to reach a resolution of any disputed items.
9. All Utility work included in the PROJECT's contract and Utility work completed by the OWNER that is reimbursed by the DEPARTMENT through an agreement shall be in accordance with the BUY AMERICA requirements of the Federal regulations (23 U.S.C. 313 and 23 CFR 635.410) all manufacturing processes for steel and iron products or predominantly of steel or iron (at least 90% steel or iron content) furnished for permanent incorporation into the work on this project shall occur in the United States. The only exception to this requirement is the production of pig iron and the processing, pelletizing and reduction of iron ore, which may occur in another country. Other than these exceptions, all melting, rolling, extruding, machining, bending, grinding, drilling, coating, etc. must occur in the United States.

- a. Products of steel include, but are not limited to, such products as structural steel piles, reinforcing steel, structural plate, steel culverts, and guardrail steel supports for signs, signals and luminaires. Products of iron include, but are not limited to, such products as cast iron frames and grates and ductile iron pipe. Coatings include, but are not limited to, the applications of epoxy, galvanizing and paint. The coating material is not limited to this clause, only the application process.
- b. A Certificate of Compliance shall be furnished for steel and iron products as part of the backup information with the billing. The form for this certification entitled "Buy America Certificate of Compliance" is attached to this agreement as "Exhibit A." Records to be maintained by the Developer for this certification shall include a signed mill test report and a signed certification by each supplier, distributor, fabricator, and manufacturer that has handled the steel or iron product affirming that every process, including the application of a coating, performed on the steel or iron product has been carried out in the United States of America, except as allowed by this Section. The lack of these certifications will be justification for rejection of the steel and/or iron product or nonpayment of the work.
- c. The requirements of said law and regulations do not prevent the use of miscellaneous steel or iron components, subcomponents and hardware necessary to encase, assemble and construct the above products, manufactured products that are not predominantly steel or iron or a minimal use of foreign steel and iron materials if the cost of such materials used does not exceed one-tenth of one percent (0.1%) of the total contract price or \$2,500.00, whichever is greater.

The Memorandum of Understanding will be incorporated into the project contract by reference or Exhibit.

APPROVED FOR THE OWNER BY:

  
(Signature)

May 11, 2017  
(Date)

President  
(Title)

APPROVED FOR THE DEPARTMENT BY:

  
(Signature)

5/15/17  
(Date)

STATE UTILITIES ADMINISTRATOR

### **Pre-Approved Contractor List**

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

**Please provide a minimum of three.**

### **Pre-Approved Design Consultant List**

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:



# **Georgia Department of Transportation**

## **Technical Provisions**

### **For**

## **Design-Build Agreement**

### **P.I. No. 110610**

## **I-85 Widening**

### **Attachment 6-13a**

## **Windstream Communications MOU**

Georgia DOT Project: I-85 widening

GDOT P.I. 0110610 &amp; 0013545

## DESIGN-BUILD MEMORANDUM OF UNDERSTANDING

between the  
Georgia Department of Transportation (hereafter the DEPARTMENT)  
and  
Windstream Communications (hereafter the OWNER)

Whereas GDOT, hereafter referred to as the DEPARTMENT proposes to undertake a design-build project hereafter referred to as PROJECT to as PROJECT # 110610 & 0013545 to Widen and reconstruct lanes in each direction from Hamilton Mill Road to SR 211 within Gwinnett and Barrow County, Georgia, and from SR 211 to UA 129 within Barrow and Jackson County, Georgia by contract through competitive bidding procedures; and,

Whereas the DEPARTMENT will accomplish the PROJECT through a Design Consultant, Design Consultant Team and/or Contractor, hereafter referred to as CONTRACTOR; and the utility owner hereafter referred to as the OWNER, and

Whereas, where OWNER has property rights ("Prior Rights") at the location of the PROJECT, OWNER will provide written evidence as to said prior rights within the area and will provide written documentation of prior rights relating to any individual crossing or Utility Facility, at the location of the PROJECT; and

Whereas, OWNER acknowledges that, generally, absent a showing of prior rights, the costs of relocation, protection, removal, or adjustment performed by OWNER shall be borne by OWNER; and

Whereas, pursuant to O.C.G.A. § 32-6-170(b), DEPARTMENT is authorized to pay or participate in the payment of the costs of relocation, protection, or adjustment of OWNER'S facilities where DEPARTMENT has made the determination that (i) such payments are in the best interest of the public and necessary in order to expedite the staging of the design-build project; and (ii) the costs of the removal, relocation, protection, or adjustment of such facilities are included as part of the Contract between the Department and the Department's roadway contractor for the design-build project; and

### 1. Type of Utility

OWNER has the following utility facilities which may need to be adjusted or relocated as a result of the proposed PROJECT:

Type of facility or facilities of OWNER:

- ☐ Domestic water mains and distribution lines and associated appurtenances
- ☐ Sanitary Sewer facilities and/or Storm Drainage System
- ☐ Electrical Distribution (overhead and underground) wires, poles, etc.
- ☐ Electrical Transmission (overhead and underground) wires, poles, etc.
- ☐ Natural Gas Distribution Facilities (underground)
- ☐ Natural Gas Transmission Facilities (underground)
- ☐ Petroleum Pipeline (underground)
- ☒ Telecommunications facilities and equipment
- ☐ Cable TV facilities
- ☐ Street Lighting
- ☐ Internet Data Service
- ☐ Other Facilities (Description) \_\_\_\_\_

## 2. New Utility Facilities Proposed (Betterment)

OWNER desires the following to be installed as new additional facilities within the PROJECT. Insert here or attach a detailed description of proposed new additional utility installations:

---

---

## 3. Assignment of Responsibilities for Design and Construction

This MEMORANDUM OF UNDERSTANDING and the following shall serve as a *basis* for assignment of responsibilities and costs for the DEPARTMENT, CONTRACTOR and the OWNER to enter into a Standard Utility Agreement (SUA) or Contract Item Agreement (CIA), if necessary, with OWNER once the PROJECT is awarded to the CONTRACTOR. For a PROJECT implementation, GDOT will not have in its possession exact costing plans to be utilized to determine exact locations of the removal, relocation, protection, or adjustment. However, Overhead/Subsurface Utility Engineering (SUE) investigations plans exist providing the best information and signifying the layout of known existing facilities. Please use these plans for developing the final determination of services as indicated below. The CONTRACTOR developed plans will be provided to the OWNER after the design build project is awarded by GDOT which shall be used by the CONTRACTOR as the final basis for the SUA or CIA. **Betterment costs will be the OWNER'S responsibility.**

**NOTE: Water and Sewer Design and Construction relocation work put in the contract will automatically be accomplished by the DEPARTMENT'S CONTRACTOR. The UTILITY OWNER will still have design approval authority. (No Pre-Approved Contractor/Consultant List required, leave page 6 blank). If you are a Water & Sewer Utility and choose to put your relocation Design and Construction in the contract, please check Design and Construction under Option 2 under 3B. Owner's electing to perform their own design, at their own cost, please select design under 3C.**

OWNER hereby intends to:

- 3A. OWNER, at the DEPARTMENT'S cost through an Agreement, will provide the following services for the properties for which it has established prior rights (Check to signify):

Design \_\_\_\_\_  
Construction \_\_\_\_\_

- 3B. OWNER, at the CONTRACTOR'S cost, for any removal, relocation, protection, adjustment and/or design (Regardless of Prior Rights) will allow their facilities to be placed into the DEPARTMENT'S contract for the following services pursuant to O.C.G.A. § 32-6-170(b). The CONTRACTOR will add the removal, relocation, protection, materials, adjustment and/or design cost, excluding betterment, to the overall PROJECT's cost. (Check to signify):

**Option 1: OWNER wants the work to be performed by the OWNER's pre-approved Design Consultants and/or Contractors.**

Design \_\_\_\_\_  
Construction   X  

**Option 2: OWNER wants the DEPARTMENT'S CONTRACTOR to perform the design and/or construction. (Check to signify):**

Design \_\_\_\_\_  
Construction \_\_\_\_\_ **If both are checked, please leave page 6 blank.**

As per this section, all work necessary for the removal, relocation, protection, or adjustment of the described utilities in accordance with the plans when approved shall be included in the project contract and accomplished by the CONTRACTOR except as follows (Check none or list any work items to be performed by the OWNER)

None   X  

Excluded Items \_\_\_\_\_

\_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- 3C. OWNER, at OWNER'S cost, will provide the following services (Check to signify):

Design   X    
Construction \_\_\_\_\_

**The following is hereby mutually agreed to and understood by both parties:**

1. The identification of existing facilities including preparation of Overhead/Subsurface Utility Engineering (SUE) investigations plans will be accomplished by the DEPARTMENT prior to award of the PROJECT and thereafter supplemented by the CONTRACTOR.
2. The CONTRACTOR shall coordinate reviews of the utility relocation information and obtain acceptance from the OWNER and DEPARTMENT when required. However; the OWNER shall apply for and obtain any required permits from the DEPARTMENT and perform any final design or proprietary design needed to administer its own relocation work if the work will not be included in the contract. If the preliminary plans indicate that no conflict exists, and the OWNER concurs with this information, the OWNER shall provide a letter of "no conflict" to the CONTRACTOR.
3. After award of the PROJECT, the CONTRACTOR will research any claimed compensable property interest for each OWNER claiming prior rights under section 3A and present the findings to the DEPARTMENT and OWNER for approval. The plans and estimate for the utility work shall be subject to approval of both the DEPARTMENT and the OWNER prior to construction. If the OWNER chooses to perform its own relocations and the OWNER holds no property interest as stated above; the OWNER shall confirm in writing that the OWNER will relocate its own facilities at no cost to the DEPARTMENT or the CONTRACTOR.
4. All construction engineering and contract supervision shall be the responsibility of the DEPARTMENT and the CONTRACTOR to ensure that all utility work included in the contract is accomplished in accordance with the PROJECT's plans and specifications. The CONTRACTOR will consult with the OWNER before authorizing any changes or deviations which affect the OWNER's facility.
5. For utility work included in the contract, the CONTRACTOR shall ensure that the design/construction and installation of the OWNER'S facilities is performed by a contractor/design consultant pre-approved/registered with both the DEPARTMENT and the OWNER. For any work included in the contract, excluding water and sewer, the OWNER will provide a list of pre-approved/registered contractors/design consultants on page 6 of the MOU.
6. For Utility work included in the contract, the OWNER or the OWNER's Consultant shall have the right to visit and inspect the work at any time and advise the CONTRACTOR and the DEPARTMENT'S Engineer of any observed discrepancies or potential issues. The DEPARTMENT agrees to notify the OWNER when all utility work is completed and ready for final inspection by the OWNER.
7. Upon Maintenance Acceptance or Final Acceptance of the utility work included in the contract and upon certification by the DEPARTMENT'S Engineer and the OWNER that the work has been completed in accordance with the plans and specifications, the OWNER will accept the adjusted, relocated, and additional facilities and will thereafter operate and maintain said facilities located within the PROJECT right of way subject to the DEPARTMENT'S Utility Accommodations Policy and Standards Manual (UAM), current edition" and any agreements in effect without further cost to the DEPARTMENT or its CONTRACTOR.
8. For the purpose of utility coordination, relocation and reimbursement matters, the OWNER shall cooperate with the CONTRACTOR in the same manner as if coordinating directly with the DEPARTMENT in accordance with the laws of the State of Georgia, the DEPARTMENT'S UAM and any agreements in effect between the DEPARTMENT and OWNER. The OWNER agrees to cooperate in good faith with the CONTRACTOR and to respond to all requests for information or meetings required to reach a resolution of any disputed items.
9. All Utility work included in the PROJECT's contract and Utility work completed by the OWNER that is reimbursed by the DEPARTMENT through an agreement shall be in accordance with the BUY AMERICA requirements of the Federal regulations (23 U.S.C. 313 and 23 CFR 635.410) all manufacturing processes for steel and iron products or predominantly of steel or iron (at least 90% steel or iron content) furnished for

permanent incorporation into the work on this project shall occur in the United States. The only exception to this requirement is the production of pig iron and the processing, pelletizing and reduction of iron ore, which may occur in another country. Other than these exceptions, all melting, rolling, extruding, machining, bending, grinding, drilling, coating, etc. must occur in the United States.

- a. Products of steel include, but are not limited to, such products as structural steel piles, reinforcing steel, structural plate, steel culverts, and guardrail steel supports for signs, signals and luminaires. Products of iron include, but are not limited to, such products as cast iron frames and grates and ductile iron pipe. Coatings include, but are not limited to, the applications of epoxy, galvanizing and paint. The coating material is not limited to this clause, only the application process.
- b. A Certificate of Compliance shall be furnished for steel and iron products as part of the backup information with the billing. The form for this certification entitled "Buy America Certificate of Compliance" is attached to this agreement as "Exhibit A." Records to be maintained by the Developer for this certification shall include a signed mill test report and a signed certification by each supplier, distributor, fabricator, and manufacturer that has handled the steel or iron product affirming that every process, including the application of a coating, performed on the steel or iron product has been carried out in the United States of America, except as allowed by this Section. The lack of these certifications will be justification for rejection of the steel and/or iron product or nonpayment of the work.
- c. The requirements of said law and regulations do not prevent the use of miscellaneous steel or iron components, subcomponents and hardware necessary to encase, assemble and construct the above products, manufactured products that are not predominantly steel or iron or a minimal use of foreign steel and iron materials if the cost of such materials used does not exceed one-tenth of one percent (0.1%) of the total contract price or \$2,500.00, whichever is greater.

The Memorandum of Understanding will be incorporated into the project contract by reference or Exhibit.

APPROVED FOR THE OWNER BY:

  
(Signature)

3-22-17  
(Date)

OSP Engineer

(Title)

APPROVED FOR THE DEPARTMENT BY:

  
(Signature)

4/13/17  
(Date)

STATE UTILITIES ADMINISTRATOR

### **Pre-Approved Contractor List**

Company Name: Globe Communications LLC  
Address: 176 Industrial Parkway, Commerce, Ga 30529  
Phone: 706-335-2228 Ext 21  
Contact Person: Jeff McConnell  
E-Mail: jeff.mcconnell@globeinc.com

Company Name: Globe Communications LLC  
Address: 1247 Fourth Avenue, Suite B, Auburn, Georgia 30011  
Phone: 770-277-0089  
Contact Person: Tony Martin  
E-Mail: tony.martin@globeinc.com

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

**Please provide a minimum of three.**

### **Pre-Approved Design Consultant List**

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:



**Windstream Georgia, LLC  
166 East Tugalo Street  
Toccoa , Georgia 30577**

**3/15/2017**

**To:DOT  
Attn: Allen Ferguson**

**Mr. Ferguson-----**

**This letter is to assure the DOT that Windstream Georgia LLC only has one contractor in Northeast Georgia which is Globe Comm, they have a contract to do all of Windstreams jobs. Windstream does a two year contract with our contractors to do any work do be done in our areas. Please contact me if you have any question.**

**Sincerely,**

**Freddie Robinson**

**Freddie Robinson**

**OSP Engineer II**

**Windstream Georgia LLC**

**706-335-0328 office**

**706-491-0515 cell**

**fredrick.robinson@windstream.com**



# **Georgia Department of Transportation**

## **Technical Provisions**

### **For**

## **Design-Build Agreement**

### **P.I. No. 110610**

## **I-85 Widening**

### **Attachment 6-13b**

## **Windstream Communications MOU**

Georgia DOT Project: I-85 Widening  
GDOT P.I. # 110610 & 0013545

## DESIGN-BUILD MEMORANDUM OF UNDERSTANDING

between the  
Georgia Department of Transportation (hereafter the DEPARTMENT)  
and  
Windstream Communications (hereafter the OWNER)

Whereas GDOT, hereafter referred to as the DEPARTMENT proposes to undertake a design-build project hereafter referred to as PROJECT # 110610 & 0013545 to Widen and reconstruct lanes in each direction from Hamilton Mill Road to SR 211 within Gwinnett and Barrow County, Georgia and from SR 211 to US 129 within Barrow and Jackson County, Georgia by contract through competitive bidding procedures; and,

Whereas the DEPARTMENT will accomplish the PROJECT through a Design Consultant, Design Consultant Team and/or Contractor, hereafter referred to as CONTRACTOR; and the utility owner hereafter referred to as the OWNER, and

Whereas, where OWNER has property rights ("Prior Rights") at the location of the PROJECT, OWNER will provide written evidence as to said prior rights within the area and will provide written documentation of prior rights relating to any individual crossing or Utility Facility, at the location of the PROJECT; and

Whereas, OWNER acknowledges that, generally, absent a showing of prior rights, the costs of relocation, protection, removal, or adjustment performed by OWNER shall be borne by OWNER; and

Whereas, pursuant to O.C.G.A. § 32-6-170(b), DEPARTMENT is authorized to pay or participate in the payment of the costs of relocation, protection, or adjustment of OWNER'S facilities where DEPARTMENT has made the determination that (i) such payments are in the best interest of the public and necessary in order to expedite the staging of the design-build project; and (ii) the costs of the removal, relocation, protection, or adjustment of such facilities are included as part of the Contract between the Department and the Department's roadway contractor for the design-build project; and

### 1. Type of Utility

OWNER has the following utility facilities which may need to be adjusted or relocated as a result of the proposed PROJECT:

Type of facility or facilities of OWNER:

- ☐ Domestic water mains and distribution lines and associated appurtenances
- ☐ Sanitary Sewer facilities and/or Storm Drainage System
- ☐ Electrical Distribution (overhead and underground) wires, poles, etc.
- ☐ Electrical Transmission (overhead and underground) wires, poles, etc.
- ☐ Natural Gas Distribution Facilities (underground)
- ☐ Natural Gas Transmission Facilities (underground)
- ☐ Petroleum Pipeline (underground)
- ☒ Telecommunications facilities and equipment
- ☐ Cable TV facilities
- ☐ Street Lighting
- ☐ Internet Data Service

## 2. New Utility Facilities Proposed (Betterment)

OWNER desires the following to be installed as new additional facilities within the PROJECT. Insert here or attach a detailed description of proposed new additional utility installations:

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## 3. Assignment of Responsibilities for Design and Construction

This MEMORANDUM OF UNDERSTANDING and the following shall serve as a *basis* for assignment of responsibilities and costs for the DEPARTMENT, CONTRACTOR and the OWNER to enter into a Standard Utility Agreement (SUA) or Contract Item Agreement (CIA), if necessary, with OWNER once the PROJECT is awarded to the CONTRACTOR. For a PROJECT implementation, GDOT will not have in its possession exact costing plans to be utilized to determine exact locations of the removal, relocation, protection, or adjustment. However, Overhead/Subsurface Utility Engineering (SUE) investigations plans exist providing the best information and signifying the layout of known existing facilities. Please use these plans for developing the final determination of services as indicated below. The CONTRACTOR developed plans will be provided to the OWNER after the design build project is awarded by GDOT which shall be used by the CONTRACTOR as the final basis for the SUA or CIA. **Betterment costs will be the OWNER'S responsibility.**

**NOTE: Water and Sewer Design and Construction relocation work put in the contract will automatically be accomplished by the DEPARTMENT'S CONTRACTOR. The UTILITY OWNER will still have design approval authority. (No Pre-Approved Contractor/Consultant List required, leave page 6 blank). If you are a Water & Sewer Utility and choose to put your relocation Design and Construction in the contract, please check Design and Construction under Option 2 under 3B. Owner's electing to perform their own design, at their own cost, please select design under 3C.**

OWNER hereby intends to:

- 3A. OWNER, at the DEPARTMENT'S cost through an Agreement, will provide the following services for the properties for which it has established prior rights (Check to signify):

Design \_\_\_\_\_  
Construction \_\_\_\_\_

- 3B. OWNER, at the CONTRACTOR'S cost, for any removal, relocation, protection, adjustment and/or design (Regardless of Prior Rights) will allow their facilities to be placed into the DEPARTMENT'S contract for the following services pursuant to O.C.G.A. § 32-6-170(b). The CONTRACTOR will add the removal, relocation, protection, materials, adjustment and/or design cost, excluding betterment, to the overall PROJECT's cost. (Check to signify):

**Option 1: OWNER wants the work to be performed by the OWNER's pre-approved Design Consultants and/or Contractors.**

Design \_\_\_\_\_  
Construction   X  

**Option 2: OWNER wants the DEPARTMENT'S CONTRACTOR to perform the design and/or construction. (Check to signify):**

Design \_\_\_\_\_  
Construction \_\_\_\_\_ **If both are checked, please leave page 6 blank.**

As per this section, all work necessary for the removal, relocation, protection, or adjustment of the described utilities in accordance with the plans when approved shall be included in the project contract and accomplished by the CONTRACTOR except as follows (Check none or list any work items to be performed by the OWNER)

None   X  

Excluded Items \_\_\_\_\_

\_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- 3C. OWNER, at OWNER'S cost, will provide the following services (Check to signify):

Design   X    
Construction \_\_\_\_\_

**The following is hereby mutually agreed to and understood by both parties:**

1. The identification of existing facilities including preparation of Overhead/Subsurface Utility Engineering (SUE) investigations plans will be accomplished by the DEPARTMENT prior to award of the PROJECT and thereafter supplemented by the CONTRACTOR.
2. The CONTRACTOR shall coordinate reviews of the utility relocation information and obtain acceptance from the OWNER and DEPARTMENT when required. However; the OWNER shall apply for and obtain any required permits from the DEPARTMENT and perform any final design or proprietary design needed to administer its own relocation work if the work will not be included in the contract. If the preliminary plans indicate that no conflict exists, and the OWNER concurs with this information, the OWNER shall provide a letter of "no conflict" to the CONTRACTOR.
3. After award of the PROJECT, the CONTRACTOR will research any claimed compensable property interest for each OWNER claiming prior rights under section 3A and present the findings to the DEPARTMENT and OWNER for approval. The plans and estimate for the utility work shall be subject to approval of both the DEPARTMENT and the OWNER prior to construction. If the OWNER chooses to perform its own relocations and the OWNER holds no property interest as stated above; the OWNER shall confirm in writing that the OWNER will relocate its own facilities at no cost to the DEPARTMENT or the CONTRACTOR.
4. All construction engineering and contract supervision shall be the responsibility of the DEPARTMENT and the CONTRACTOR to ensure that all utility work included in the contract is accomplished in accordance with the PROJECT's plans and specifications. The CONTRACTOR will consult with the OWNER before authorizing any changes or deviations which affect the OWNER's facility.
5. For utility work included in the contract, the CONTRACTOR shall ensure that the design/construction and installation of the OWNER'S facilities is performed by a contractor/design consultant pre-approved/registered with both the DEPARTMENT and the OWNER. For any work included in the contract, excluding water and sewer, the OWNER will provide a list of pre-approved/registered contractors/design consultants on page 6 of the MOU.
6. For Utility work included in the contract, the OWNER or the OWNER's Consultant shall have the right to visit and inspect the work at any time and advise the CONTRACTOR and the DEPARTMENT'S Engineer of any observed discrepancies or potential issues. The DEPARTMENT agrees to notify the OWNER when all utility work is completed and ready for final inspection by the OWNER.
7. Upon Maintenance Acceptance or Final Acceptance of the utility work included in the contract and upon certification by the DEPARTMENT'S Engineer and the OWNER that the work has been completed in accordance with the plans and specifications, the OWNER will accept the adjusted, relocated, and additional facilities and will thereafter operate and maintain said facilities located within the PROJECT right of way subject to the DEPARTMENT'S Utility Accommodations Policy and Standards Manual (UAM), current edition" and any agreements in effect without further cost to the DEPARTMENT or its CONTRACTOR.
8. For the purpose of utility coordination, relocation and reimbursement matters, the OWNER shall cooperate with the CONTRACTOR in the same manner as if coordinating directly with the DEPARTMENT in accordance with the laws of the State of Georgia, the DEPARTMENT'S UAM and any agreements in effect between the DEPARTMENT and OWNER. The OWNER agrees to cooperate in good faith with the CONTRACTOR and to respond to all requests for information or meetings required to reach a resolution of any disputed items.
9. All Utility work included in the PROJECT's contract and Utility work completed by the OWNER that is reimbursed by the DEPARTMENT through an agreement shall be in accordance with the BUY AMERICA requirements of the Federal regulations (23 U.S.C. 313 and 23 CFR 635.410) all manufacturing processes for

steel and iron products or predominantly of steel or iron (at least 90% steel or iron content) furnished for permanent incorporation into the work on this project shall occur in the United States. The only exception to this requirement is the production of pig iron and the processing, pelletizing and reduction of iron ore, which may occur in another country. Other than these exceptions, all melting, rolling, extruding, machining, bending, grinding, drilling, coating, etc. must occur in the United States.

- a. Products of steel include, but are not limited to, such products as structural steel piles, reinforcing steel, structural plate, steel culverts, and guardrail steel supports for signs, signals and luminaires. Products of iron include, but are not limited to, such products as cast iron frames and grates and ductile iron pipe. Coatings include, but are not limited to, the applications of epoxy, galvanizing and paint. The coating material is not limited to this clause, only the application process.
- b. A Certificate of Compliance shall be furnished for steel and iron products as part of the backup information with the billing. The form for this certification entitled "Buy America Certificate of Compliance" is attached to this agreement as "Exhibit A." Records to be maintained by the Developer for this certification shall include a signed mill test report and a signed certification by each supplier, distributor, fabricator, and manufacturer that has handled the steel or iron product affirming that every process, including the application of a coating, performed on the steel or iron product has been carried out in the United States of America, except as allowed by this Section. The lack of these certifications will be justification for rejection of the steel and/or iron product or nonpayment of the work.
- c. The requirements of said law and regulations do not prevent the use of miscellaneous steel or iron components, subcomponents and hardware necessary to encase, assemble and construct the above products, manufactured products that are not predominantly steel or iron or a minimal use of foreign steel and iron materials if the cost of such materials used does not exceed one-tenth of one percent (0.1%) of the total contract price or \$2,500.00, whichever is greater.

The Memorandum of Understanding will be incorporated into the project contract by reference or Exhibit.

APPROVED FOR THE OWNER BY:

Randal Liles

(Signature)

MARCH 20, 2017

(Date)

CONSTRUCTION MANAGER II

(Title)

APPROVED FOR THE DEPARTMENT BY:

Robert M.

(Signature)

4/13/17

(Date)

STATE UTILITIES ADMINISTRATOR

### **Pre-Approved Contractor List**

Company Name: Globe Communications LLC  
Address: 176 Industrial Parkway, Commerce, Ga 30529  
Phone: 706-335-2228 Ext 21  
Contact Person: Jeff McConnell  
E-Mail: jeff.mcconnell@globeinc.com

Company Name: Globe Communications LLC  
Address: 1247 Fourth Avenue, Suite B, Auburn, Georgia 30011  
Phone: 770-277-0089  
Contact Person: Tony Martin  
E-Mail: tony.martin@globeinc.com

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

**Please provide a minimum of three.**

### **Pre-Approved Design Consultant List**

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:

Company Name:  
Address:  
Phone:  
Contact Person:  
E-Mail:



**Windstream Georgia, LLC  
166 East Tugalo Street  
Toccoa , Georgia 30577**

**3/15/2017**

**To:DOT**

**Attn: Allen Ferguson**

**Mr. Ferguson-----**

**This letter is to assure the DOT that Windstream Georgia LLC only has one contractor in Northeast Georgia which is Globe Comm, they have a contract to do all of Windstreams jobs. Windstream does a two year contract with our contractors to do any work do be done in our areas. Please contact me if you have any question.**

**Sincerely,  
Freddie Robinson**

**Freddie Robinson  
OSP Engineer II  
Windstream Georgia LLC  
706-335-0328 office  
706-491-0515 cell  
fredrick.robinson@windstream.com**



# **Georgia Department of Transportation**

## **Technical Provisions**

### **For**

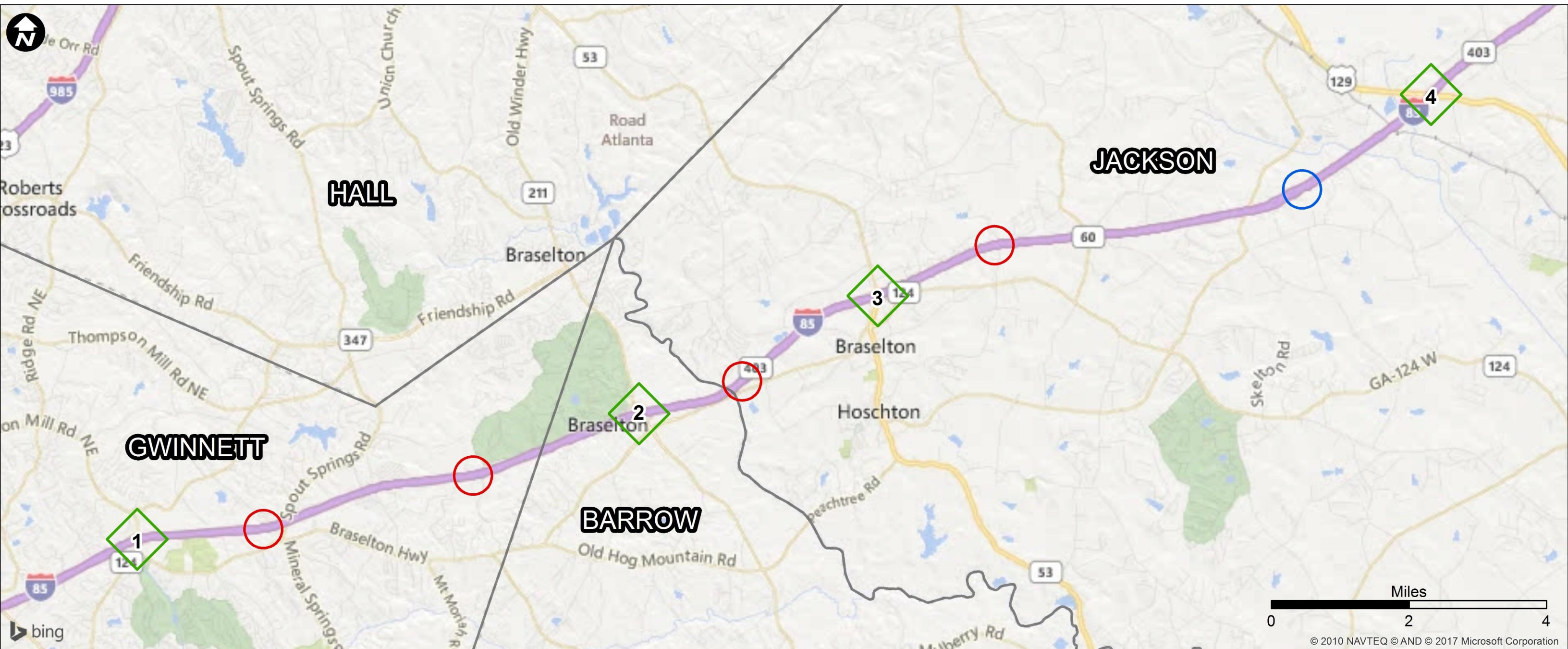
## **Design-Build Agreement**

### **P.I. No. 110610**

## **I-85 Widening Project**

### **Attachment 11-1**

## **Barrier Gate Location Map**



**HNTB**

191 Peachtree Street, NE  
Suite 3300  
Atlanta, GA 30303

Telephone (404) 946 - 5700  
Facsimile (404) 841 - 2820  
www.hntb.com

**Project PI #s 110610 & 0013545**  
**Median Crossover Potential Locations**



Retained Interchange Bridge

Proposed Median Cross-over

Proposed Median Barrier Gate

1. Hamilton Mill Rd.- Interchange Overpass- Retain
2. SR 211- Interchange Overpass – Retain
3. SR 53 – Interchange overpass- Retain
4. US 129 / SR 11 – Interchange Overpass - Retain

**Georgia Department of Transportation**

**Technical Provisions**

**For**

**Design-Build Agreement**

**P.I. No. 110610**

**I-85 Widening**

**Attachment 13-1**

**Special Provisions**

**SP 443 Elastomeric Profile Bridge Joint Seals**

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

**SPECIAL PROVISION**

**Project No: N/A  
P.I. No. 110610-, GWINNETT & BARROW COUNTIES**

**SECTION 443 - ELASTOMERIC PROFILE BRIDGE JOINT SEALS**

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**443.1 General Description**

This work consists of furnishing and installing a bridge deck joint seal device to the limits shown on the plans that consists of a monolithic steel strip seal retainer, a polychloroprene gland, and alubricant adhesive. Only a continuous full length strip seal joint system is acceptable, unless stage construction or excessive length prohibits monolithic installation. Utilize a prequalified expansion device manufacturer with a five year proven history of successful product manufacture.

Provide an expansion joint device designed for HS-20 truck loading and impact in accordance with 2002 AASHTO specifications.

**443.1.01 Definitions**

**A. Strip Seal Expansion Joint Device**

This device is constructed of steel elements designed with a locking mechanism capable of securely locking the edges of a continuous non-reinforced polychloroprene gland. The steel elements are anchored to the structure in accordance with the specification. All materials are as specified in the contract documents or as recommended by the manufacturer of the strip seal joint assembly. The strip seal joint assembly is referred to throughout the specifications as the expansion joint device.

**B. Joint**

Provide joint opening between two portions of a structure to allow for expansion and contraction.

**443.1.02 Related Referernces**

General Provisions 101 through 150.

**443.1.02 Submittals**

Submit for review by the Engineer, complete shop drawings and product data for the expansion device. Submit seven (7) complete sets of information. At the discretion of the Engineer, furnish facilities for inspection of the completed device or a representative sample in the manufacturer's plant. Allow the inspector free access to the necessary

parts of the manufacturer's plant. Accurately set and securely support at the correct grade and elevation and the correct joint opening based on temperature as shown on the plans and on the approved shop drawings.

## 443.2 Materials

Furnish a manufacturer's certification that the materials proposed for use on the project have been pretested and meet the requirements as set forth in the specification and as detailed in the corresponding contract drawings. Do not install materials in the field prior to the Engineer's approval. The strip seal expansion joint device, including anchorages, is to be supplied by the manufacturer. The following requirements for each component are to be verified by the manufacturer:

### A. Steel Elements

Provide ASTM A-588 weathering grade steel for the material utilized to produce a shape suitable to mechanically lock the sealing element in place throughout the normal movement cycle of the joint. Provide a minimum thickness of ¼ in. as measured from the internal locking mechanism cavity to the top surface of the steel retainer. Provide minimum dimensions of 2-1/4 in. width and 3 in. height.

Provide steel strip seal retainers that are a monolithic steel shape with a machined seal retainer cavity. Multiple component welded steel shapes and rolled steel, that is bent or crimped to achieve final shape and/or seal retainer cavity, is not permitted. Perform all welding in accordance to the Georgia Standard Specifications and paragraph D-1.5 of the AWS welding code. Provide full penetration groove welds for splices between sections of steel strip seal retainers.

### B. Continuous Polychloroprene Gland

Supply and install the polychloroprene gland in one continuous length. Provide a gland with a shape that promotes self-removal of foreign material during normal joint operation. Provide a gland with physical properties generally in accordance with the following:

| <u>PHYSICAL PROPERTY</u>                  | <u>ASTM TEST METHOD</u>      | <u>REQUIREMENTS</u> |
|---|------------------------------|---------------------|
| Tensile strength, min, psi                | D-412                        | 2000                |
| Elongation @ break, min, %                | D-412                        | 250%                |
| Hardness, Type A durometer                | D-2240 Modified              | 55 ± 5% points      |
| Oven aging, 70h @ 212°F                   | D-573                        |                     |
| Tensile strength, max % loss              |                              | 20% max             |
| Elongation, max % loss                    |                              | 20% max             |
| Hardness, Type A durometer, points change |                              | 0 to + 10           |
| Oil Swell, ASTM Oil No. 3, 70h @ 212°F    | D-471                        |                     |
| Weight change, max %                      |                              | 45%                 |
| Ozone resistance                          | D-1149 Modified              |                     |
| 20% strain, 300 pphm in air 70h @ 104°F   |                              | no cracks           |
| Low temperature stiffening, 7 days @ 14°F |                              |                     |
| Hardness, Type A durometer, points change |                              | 0 to + 15           |
| Compression Set,                          |                              |                     |
| 70h @ 212°F max                           | D-395 Method B<br>(modified) | 40%                 |

### **C. Lubricant Adhesive**

Use a one part moisture curing polyurethane and hydrocarbon solvent mixture meeting the requirements of ASTM D-4070-81 for the material used in bonding the polychloroprene gland to the steel elements.

### **D. Anchorage**

Provide an anchorage as detailed on the contract drawings with a minimum of 0.75 in<sup>2</sup> of bolt area per 1.0 linear foot of joint (Minimum ½ in. diameter hardware at 6 in. O.C. both sides of joint).

## **443.2.01 Delivery, Storage and Handling**

General Provisions 101 through 150.

Store all materials to prevent damage from the elements and to ensure the preservation of its quality and fitness for the work. Avoid contact with flame.

Inspect all stored materials, although accepted before storage, prior to their use in the work. Ensure that all stored materials meet the requirements of the Contract at the time of use.

Remove from the site of the work immediately, any material rejected because of failure to meet the required tests or rejected because of damage. Replace all removed material at no additional cost to the Department.

## **443.3 Construction Requirements**

### **443.3.01 Personnel**

General Provision 101 through 150.

### **443.3.02 Equipment**

General Provisions 101 through 150.

### **443.3.03 Preparation**

General Provisions 101 through 150.

### **443.3.04 Fabrication**

General Provisions 101 through 150.

### **443.3.05 Construction**

Measure and record the surface temperature of the concrete and/or steel with a surface thermometer as described below. Record the temperature of the underside of the concrete slab at each end of the superstructure element adjacent to the expansion joint. Take the average of the readings to use with the temperature shown on the shop drawings.

Immediately prior to installation, inspect the joint system for proper alignment and complete bond between the neoprene sealer and the steel and proper stud placement and effectiveness. No bends or kinks in the joint system are allowed, except as necessary to follow the roadway grades. Any joint system exhibiting bends or kinks due to transporting or as a result of mishandling are to be removed from the work site, and replaced by a new joint system, at no additional expense to the Department. Where stage construction is required, connect all steel sections using full penetration groove welds.

Inspect studs visually and give each a light blow with a 4 lb. hammer to ensure full connection to steel. Repalce any stud which does not have a complete end weld, or does not emit a ringing sound when struck with a light blow by hammer. Carefully remove studs located more than 1 inch in any direction from the location shown on the shop drawings and provide a new stud placed on the proper location. Perform all stud replacements at no additional expense to the Department.

Blast clean all metal surfaces to come in contact with the neoprene sealer in accordance with the requirements of Steel Structures Painting Council Surface Preparation NO. 6 (SSPC-SP6)-Commercial Blast Cleaning. After cleaning, all cleaned surfaces are to exhibit a clean quality of C SA 2, or better, as defined by Steel Structures Painting Council Standard SSPC-VIS 1.

Protect cleaned metal surfaces until such time as the sealer and lubricant adhesive are placed against the metal surface. Reclean any metal surface upon which rusting appears in accordance with the foregoing, at no additional expense to the Department. Replace neoprene seals not fully bonded to the steel at no additional expense to the Department.

After installation and when the adjacent concrete is cured, water test the expansion joint device under the Engineer’s direction and supervision. Seeping of water through the joint is cause for rejection of the expansion joint device.

**443.4 Measurement**

Measurement for the expansion device is per each device completely installed, which is the expansion joint device in place with the concrete placed and finished and the watertight integrity test performed as described above.

**443.5 Payment**

Payment for the expansion device as specified above is paid for at the Contract Unit price bid per each. Such payment is full compensation for furnishing all equipment and materials and performing the work in accordance with the Plans and Specifications.

Payment will be made under:

|              |  |          |
|--------------|--|----------|
| Item No. 443 | Elastomeric Profile Bridge Joint Seals, Bridge No - __<br>, Bent No - __ | Per each |
|--------------|--|----------|



# **Georgia Department of Transportation**

## **Technical Provisions**

### **For**

## **Design-Build Agreement**

### **P.I. No. 110610**

## **I-85 Widening**

### **Attachment 13-1**

## **Special Provisions**

## **SP 447 Modular Expansion Joints**

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

**SPECIAL PROVISION**

**PROJECT NO. N/A  
P.I. NO. 110610-, GWINNETT & BARROW COUNTIES**

**Section 447—Modular Expansion Joints**

*Delete Section 447 and substitute the following:*

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**Section 447—Modular Expansion Joints**

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**447.1 General Description**

This work includes fabricating, furnishing, and installing a modular expansion joint device at the locations shown on the plans and in accordance with these specifications. Seal the deck surface and side barriers to prevent water from seeping through the bridge deck. Any seeping of water through the joint will be cause for rejection of the expansion device.

Use a modular expansion joint device supplied by one of the following:

- (a) Wabo Modular Expansion Joint System – as furnished by:  
Watson Bowman Acme  
95 Pineview Drive  
Amherst, New York 14228      Tel. (716) 691-7566
- (b) Steelflex Modular Expansion Joint System – as furnished by:  
D.S. Brown Company  
300 East Cherry Street  
North Balitmore, Ohio 45872      Tel. (419) 257-3561

Only a continuous full length modular joint device supplied by one of the foregoing suppliers is acceptable. No other supplier will be considered. Only one type of modular joint device will be permitted to be installed at all locations. The installation of two different types at separate locations will not be permitted.

**447.1.01 Definitions**

The term modular expansion device includes the following items:

- Elastomeric joint seals
- Support bar
- Center beam

## Section 447 – Modular Expansion Joints

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- Edge beam
- Sliding elastomeric bearings

### 447.1.02 Related References

#### A. Standard Specifications

Section 501—Steel Structures

Section 535—Painting Structures

Section 645—Repair of Galvanized Coatings

Section 851—Structural Steel

#### B. Referenced Documents

General Provisions 101 through 150.

### 447.1.03 Submittals

#### A. Shop Drawings

Submit shop drawings in accordance with Section 501 of the Specifications. Include the manufacturer's instructions for proper installation of the expansion joint device. Show details of the expansion device at the barrier. Furnish the facilities for testing and inspecting the completed device or have the manufacturer provide a representative sample expansion device in his plant or at an independent test facility. Allow inspectors free access to the necessary parts of the manufacturer's plant and test facility and cooperate with the Inspector.

## 447.2 Materials

Ensure that materials meet the following requirements:

| MATERIAL  | SPECIFICATION   |
|---|---|
| Structural Steel (except center beams, edge beams and support bars) | ASTM A 709 Gr 36 (A 709 Gr 250)   |
| Center Beams, Edge Beams and Support Bars                           | ASTM A 709 Gr 50 (A 709 Gr 345) or<br>ASTM A 709 Gr 50W (A 709 Gr 345W) |
| Headed Studs  | ASTM A 108  |
| Premolded Seals, Lubricant, Adhesive, and Sliding Surfaces          | As per manufacturer's current literature and recommendations            |
| Stainless Steel Bearing Surfaces                                    | ASTM A 167 or A 240M/A 240, Type 304                                    |

### 447.2.01 Delivery, Storage, and Handling

General Provisions 101 through 150.

## 447.3 Construction Requirements

### 447.3.01 Personnel

Ensure that the manufacturer provides an experienced representative familiar with the installation of the expansion device to be present at all times while the expansion device is being installed. Notify the expansion device manufacturer of the scheduled installation a minimum of two (2) weeks prior to the installation date.

**447.3.02 Fabrication**

**A. Modular Unit**

1. Use a device consisting of premolded elastomeric expansion joint strip seals mechanically held in place by steel center beams and edge beams. Box seals will not be permitted. Ensure that the components meet the following requirements:
  - Each transverse center beam is a one-piece monolithic shape individually supported by, and welded to, an independent support bar.
  - Edge beams that are a minimum of 4 ¾ inches (120 mm) in height and have a machined or extruded retainer shape.
  - Securely anchored into concrete.
  - Support bars supported by sliding elastomeric bearings.
  - Provide equal-distance control of the premolded elastomeric seals.
2. Paint or galvanize all structural steel not in contact with elastomers or embedded in concrete in accordance with Section 501. Either painting or galvanizing may be used, unless noted otherwise on the plans. Galvanize (do not paint) portions of structural steel in contact with elastomeric seals or embedded in concrete. Shop apply all paint coats.

**B. Center Beams and Support Bars**

Design center beams, support bars, and their connections to satisfy the applicable requirements of the current edition of AASHTO Standard Specifications for Highway Bridges. In addition, design center beams and support bars to satisfy the minimum criteria:

- The maximum spacing of the support bars connected to a center beam is 4.0 feet (1.22 m) along the center beam.
- The minimum area of the center beam is 4.9 square inches (645 mm<sup>2</sup>).
- Minimum section modulus about the horizontal axis for the bottom fiber of a center beam is 5.9 cubic inches (96 684mm<sup>3</sup>).
- For the support bar, the minimum area (A) and minimum section modulus, about the horizontal axis for the top fiber (S), is as follows:

|                                       | <u>Rated Movement (inches/millimeters)</u> |            |            |             |             |             |              |
|---------------------------------------|--|------------|------------|-------------|-------------|-------------|--------------|
|                                       | 0-6/150                                    | 0-9/230    | 0-12/305   | 0-15/380    | 0-18/460    | 0-21/535    | 0-21/610     |
| A (in <sup>2</sup> /mm <sup>2</sup> ) | 5.1/3290                                   | 6.2/4010   | 7.0/4516   | 7.7/4968    | 8.5/5484    | 9.1/5871    | 9.7/6258     |
| S (in <sup>3</sup> /mm <sup>3</sup> ) | 2.9/47 522                                 | 4.2/68 826 | 5.5/90 129 | 6.7/109 793 | 8.0/131 097 | 9.3/152 400 | 10.4/170 426 |

- Ensure that the center beams and support bars are sufficiently detailed in the shop drawings so that the above minimum section properties can be independently verified using the information contained in the shop drawings.

**447.3.03 Construction**

Install the modular expansion joint device in strict accordance with the manufacturer’s written instructions, the advice of their representative, and these specifications. Ensure that the permanently installed expansion joint device matches the finished roadway profile and grade.

Immediately prior to installation, have the Engineer inspect the expansion joint device for proper alignment, and complete bond between the premolded elastomeric seals and the steel, and proper stud placement and constructability. Bond any

## Section 447 – Modular Expansion Joints

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premolded elastomeric seals not fully bonded to the steel. Ensure that all bolted connections are checked and tightened if found to be loose.

Do not allow any bends or kinks in the expansion joint steel (except as necessary to follow the roadway grades). Straightening of bends or kinks will not be allowed. Remove any expansion joint device exhibiting bends or kinks from the work site, and replace it with a new expansion device.

Ensure that the manufacturer presets the expansion joint device prior to shipment. Preset the joint opening at 70° F (21° C) or as indicated on the plans. Remove any mechanical devices supplied to set the expansion joint to the proper width following final adjustment for temperature.

Inspect the concrete anchorages visually and give each one a light blow with a 4 lb (18 N) hammer. Replace any anchorage which does not have a complete weld or does not emit a ringing sound when struck with a light blow of the hammer.

Weld stainless steel sheet to the support member. Adhesive will not be allowed.

Anchor the expansion device as shown on the plans or as shown on the shop drawings approved by the Engineer. Where support bar boxes interfere with the edge beam anchorage method, weld the edge beam to the support bar boxes. For portions of the support bar boxes embedded in concrete, weld all plate connections perimeter in a manner that will prevent water or mortar from entering the box.

Accurately set and securely support the expansion device at the correct grade and elevation, and the correct joint opening as shown on the plans and on the shop drawings. If the maximum time between setting the joint opening and placing concrete exceeds four hours, check and adjust the opening as necessary.

Measure the structure temperature by recording the surface temperature of the concrete and/or steel with a surface thermometer as described below.

1. Concrete bridges: Record the temperature of the underside of the concrete slab at each end of the superstructure element adjacent to the expansion joint. Take the average of the readings to use with the temperature adjustment shown on the plans or on the approved shop drawings.
2. Steel bridges: Record the concrete slab temperature as described above. In addition, record the surface temperature of the shaded portion of the girder web at each location. Average the readings of the steel and concrete to use with the temperature adjustment.

Blast clean all non-galvanized metal surfaces that come in contact with the premolded elastomeric seal and lubricant adhesive in accordance with the requirements of Steel Structures Painting Council Surface Preparation Specification No. 6 (SSPC-SP6, Commercial Blast Cleaning).

Protect the cleaned metal surfaces from rusting until the premolded elastomeric seal and lubricant adhesive are placed against the metal surface. Reclean any previously cleaned metal on which rusting appears in accordance with the foregoing.

In order to perform the work of installing the expansion joint device in a proper manner, some portions of the barrier and bridge deck cannot be constructed until after the expansion joint is installed. After the modular expansion joint device has been set to its final line and grade, fill recess openings in the deck and barrier with concrete (Class AA).

### 447.3.04 Quality Acceptance

#### A. Fatigue Testing

Perform fatigue testing by an independent testing laboratory on multiple spans of one or more full-size center beams. Test the same support and connections of the center beams and support bars as for the designed unit. Apply a simultaneous horizontal load, equal to a minimum of 20% of the vertical load. Perform the fatigue testing in accordance with the manufacturer's recommendations and approved procedures.

#### B. Watertight Integrity

After the expansion joint device has been permanently installed, test the full length of the device for watertight integrity. Use a method satisfactory to the Engineer.

Cover the entire joint system with water, either ponded or flowing, for a minimum duration of 15 minutes. Inspect the concrete surfaces under the joint during this 15 minute period and also for a minimum of 45 minutes after the supply of water has stopped, for any evidence of dripping water on any surface on the underside of the joint. Patches of moisture are not a cause for non-acceptance.

**Section 447 – Modular Expansion Joints**

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If the joint system exhibits evidence of water leakage at any place whatsoever, locate the leakage and take measures to correct the leakage as approved by the Engineer. Subsequent to corrective measures, perform the watertightness integrity test subject to the same conditions as the original test.

The words “permanently installed” as used above include completion of the portions of the barrier and deck that cannot be constructed until after the expansion device installed. This applies even though this work is to be paid for under other contract items.

**C. Contractor Certification**

Provide written certification to the Engineer that the expansion joint device was installed in accordance with the manufacturer’s instructions, the advice of their representative, and these specifications. Also, provide in writing any certification from the joint manufacturer’s representative

**447.4 Measurement**

Bridge expansion device will be measured as a unit, completely installed and accepted.

The words “completely installed” mean that the expansion joint device is in place with concrete placed and finished, and that the watertight integrity test has been successfully performed.

**447.5 Payment**

Each expansion joint device will be paid for at the Contract Price per each, complete in place. Payment will be full compensation for all work necessary to furnish, test, and install a modular expansion device, steel angles, concrete anchorages, placing and finishing concrete in block-outs.

Payment will be made under;

Item No. 447-1050 Modular Expansion Joint, Br No - , Bt No - ..... per each

# **Georgia Department of Transportation**

## **Technical Provisions For Design-Build Agreement P.I. No. 110610**

### **I-85 Widening**

#### **Attachment 13-1 Special Provisions SP 449 Silicone Seal**

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

**SPECIAL PROVISION**

**PROJECT No: N/A  
P.I. No: 110610-, GWINNETT & BARROW COUNTIES**

**SECTION 449 – Bridge Deck Joint Seals**

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*Delete Subsection 449.1 and substitute the following:*

This work consists of furnishing and installing bridge deck joint sealing systems at the locations shown on the Plans.

These bridge deck joint sealing systems consist of a joint seal and may include concrete headers. Use a joint seal material as shown in the plans and conforms to the following:

- A preformed elastomeric neoprene profile seal, or
- A preformed silicone joint seal, or
- A low-density, closed cell, cross-linked, ethylene vinyl acetate, polyethylene copolymer, nitrogen-blown seal.

Use either epoxy concrete or elastomeric concrete for header material when called for in the plans. Mix and use elastomeric and epoxy concrete material according to the manufacturer's guidelines.

*Add the following to Subsection 449.2:*

**J. Performed Silicone Joint Seal**

- The preformed silicone joint seal shall as a minimum:
- Be held in place by a non-sag, high modulus silicone adhesive.
- Be compatible with epoxy and elastomeric concrete header material and steel headers (if required).
- Withstand the effects of vertical and lateral movements, skew movements and rotational movement without adhesive or cohesive failure.
- The depth of the joint shall be recessed below the riding surface throughout the normal limits of joint movement.
- Resistant to ultraviolet rays
- Resistant to abrasion, oxidation, oils, gasoline, salt, and other materials that may be spilled on or applied to the surface.

Ensure the joint meets the following physical properties:

| Test                       | Requirements                       | Test Method |
|----------------------------|------------------------------------|-------------|
| Hardness Type A durometer  | 53 ± 5                             | ASTM D 2240 |
| Tensile Strength (min)     | 550 psi (3.8 Mpa)                  | ASTM D 412  |
| Elongation at break (min)  | 350%                               | ASTM D 412  |
| Tear Strength (min)        | 80 lb/in (92 kg/cm)                | ASTM D 624  |
| Compression set (max)      | 30% at 350o F                      | ASTM D 395  |
| Operating temp range (min) | -60° F to 450° F (51° C to 232° C) |             |

The adhesive shall also have the following properties:

| Test                                | Requirements       | Test Method     |
|-------------------------------------|--------------------|-----------------|
| Sag/flow (max)                      | 3/16" (4.8 mm)     | ASTM C 639      |
| Hardness                            | 23 ± 3             | ASTM C 661      |
| Tack free time (max)                | 30 minutes         | ASTM C 679      |
| Skin over time (tooling Time) (max) | 5 minutes          | AT 75° F/50% RH |
| Cure through to ¼" thickness (max)  | 16 hours           | AT 75° F/50% RH |
| Resistance to UV                    | No Degradation     | ASTM C 793      |
| Peel Adhesion to substrates (min)   | 50 lb/in (58kg/cm) | ASTM C 794      |

*Delete Subsection 449.3.03.A.2 and substitute the following:*

**1. Preparation for Joint Seal:**

Remove loose, eroded, and unsound concrete from the surface within the joint area. Immediately before placing the seal, sandblast the concrete surfaces or abrade free of oil, dust, dirt, traces of asphaltic concrete, or other contaminants. Saw-cutting of the existing concrete deck maybe necessary to provide an acceptable attachment surface for the joint seal.

*Add the following to Subsection 449.3.05:*

**H. Preformed Silicone Joint Seal**

1. When epoxy or elastomeric concrete headers are installed and have cured in accordance with manufacture's recommendations, remove the temporary joint filler (when called for) and thoroughly clean the joint faces of all joint filler.
2. Lightly sandblast the joint to remove all residue. Prior to installation ensure surfaces are completely dry and all recommendations of the manufacture have been completed.
3. Clean the seal prior to installation by wiping it down with a cloth saturated with denatured alcohol.
4. Apply a 3/8" thick bead of adhesive along both sides of the joint at the depth recommended by the manufacture.
5. Position the joint seal to the proper depth as recommended by the manufacture.
6. Apply a bead of adhesive along the top side of the joint on each side as recommended by the manufacture.
7. Tool the adhesive twice to insure complete contact with the vertical edge.

*Add the following to Subsection 449.5:*

|              |  |                         |
|--------------|--|-------------------------|
| Item No. 449 | Preformed Silicone Joint Seal, Br No - _____ | Per Linear Foot (meter) |
|--------------|--|-------------------------|

# **Georgia Department of Transportation**

## **Technical Provisions**

### **For**

## **Design-Build Agreement**

### **P.I. No. 110610**

## **I-85 Widening**

### **Attachment 13-1**

## **Special Provisions**

### **SP 500 HPC**

**Georgia Department of Transportation**

**State of Georgia**

**Special Provision**

**PROJECT NO.: 110610-, GWINNETT & BARROW COUNTY**

**P.I. NO.: 110610-**

**Section 500—Concrete Structures**

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*Delete Subsection 500.1 and substitute the following:*

This work consists of manufacturing and using High Performance Portland cement concrete to construct precast-prestressed concrete bridge members as shown in the plans and using normal weight Portland cement concrete to construct structures as shown in the Plans.

*Add the following to Subsection 500.1.02.A:*

Section 831—Admixtures

*Add the following to Subsection 500.1.02.B:*

AASHTO T 277

*Add the following to Subsection 500.1.03.A:*

**High Performance Concrete Mix Designs**

The Fabricator is responsible for all concrete mix designs. Ensure that concrete mixes contain enough cement to produce workability within the water-cement ratio specified in Table 1A—High Performance Concrete Mix Table, below.

Submit a mix design for approval to the Office of Materials and Research. Include the sources and actual quantity of each ingredient and laboratory results that demonstrate the ability of the design to attain both the required compressive strength and chloride permeability at 56 days.

Include laboratory compressive strength test results of at least eight test cylinders prepared and cured according to AASHTO T 126. Ensure these test cylinders are made from two or more separate batches with an equal number of cylinders made from each batch.

Also include laboratory chloride permeability test results of at least two test specimens prepared and tested according to AASHTO T 277. Ensure these test specimens are made from two or more separate batches with an equal number of specimens made from each batch.

Table 1A—High Performance Concrete Mix Table

| English           |                           |  |                                      |   |     |  |     |   |   |
|-------------------|---------------------------|--|--------------------------------------|---|-----|--|-----|---|---|
| Class of Concrete | Coarse Aggregate Size No. | (1) Minimum Cement Factor (lbs/yd <sup>3</sup> ) | Maximum Water/Cement ratio (lbs/lbs) | (2) Slump Acceptance Limits (in)<br>Lower-Upper |     | Entrained Air Acceptance Limits (%)<br>Lower-Upper |     | (3) Minimum Compressive Strength at 56 days (psi) | Maximum Chloride Permeability at 56 days (Coulombs) |
| "AAA HPC"         | 67                        | 650  | .330                                 | 2   | 7   | 3.5  | 6.5 | Beams – As shown on the Plans<br>Piling – 5000    | Beams – 3,000<br>Piling – 2,000                     |
| Metric            |                           |  |                                      |   |     |  |     |   |   |
| Class of Concrete | Coarse Aggregate Size No. | (1) Minimum Cement Factor (kg/m <sup>3</sup> )   | Maximum Water/Cement ratio (kg/kg)   | (2) Slump acceptance Limits (mm)<br>Lower-Upper |     | Entrained Air Acceptance Limits (%)<br>Lower-Upper |     | (3) Minimum Compressive Strength at 56 days (MPa) | Maximum Chloride Permeability At 56 days (Coulombs) |
| "AAA HPC"         | 67                        | 386  | .330                                 | 50  | 180 | 3.5  | 6.5 | Beams – As shown on the Plans<br>Piling – 35      | Beams – 3,000<br>Piling – 2,000                     |

- Determine the slump acceptance after the addition of high-range water reducer.
- Determine the minimum compressive strength at 56 days using 4 in. diameter x 8 in. high (100 mm x 200 mm) cylinders.

Add the following to Subsection 500.2 Table 3:

|             |              |
|-------------|--------------|
| Fly Ash     | 831.2.03.A.1 |
| Silica Fume | 831.2.03.A.4 |

Add the following note to Subsection 500.2 Table 3:

- Use Type I or III Portland cement in High Performance concrete. Do not use air-entraining cement.

Add the following to Subsection 500.3.04.D.4:

- For High Performance concrete, fly ash may be used as an additive at an addition rate not to exceed 15% of the cement by weight.

Add the following to Subsection 500.3.04.D:

- Silica Fume

Silica Fume may be used as an additive at an addition rate not to exceed 10% of the cement by weight.

# **Georgia Department of Transportation**

## **Technical Provisions**

### **For**

## **Design-Build Agreement**

### **P.I. No. 110610**

## **I-85 Widening**

### **Attachment 13-1**

## **Special Provisions**

## **SP 500 Light Weight Concrete**

**Georgia Department of Transportation**  
**State of Georgia**  
**Special Provision**  
**PROJECT NO.: 110610-, GWINNETT & BARROW COUNTY**  
**P.I. NO.: 110610-**  
**Section 500—Concrete Structures**

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*Add the following to Subsection 500.1:*

This work consists of manufacturing and using Portland cement concrete with lightweight aggregate to construct structures as shown in the Plans.

*Add the following to Subsection 500.1.02.B*

ASTM C 567

AASHTO T 96

AASHTO T 104

AASHTO M 195

AASHTO T 196

GDT 32

*Add the following to Subsection 500.3.01:*

C. ACI Concrete Technician

Provide a GDOT certified ACI Concrete Technician, from an independent GDOT prequalified consultant firm, which is certified to perform Field Testing of Roadway Construction Materials.

*Add the following to Subsection 500.3.04.F.1:*

- f. Lightweight Concrete—Concrete composed of a mixture of cementitious material, normal weight fine aggregate, lightweight coarse aggregate conforming to AASHTO M 195, water and admixtures. All structural lightweight concrete will have a maximum equilibrium density of 115 lbs/ft<sup>3</sup> (1840 kg/m<sup>3</sup>) as determined by ASTM C 567.
- g. Lightweight concrete will comply with the applicable requirements of Section 500 of the Standard Specifications. Use GDT 32 or AASHTO T 196 to determine air content of structural lightweight concrete.

Use lightweight coarse aggregate from an approved source or stockpile meeting the requirements of AASHTO M 195 and the Sulfate Soundness (AASHTO T 104) and Los Angeles Abrasion (AASHTO T 96) requirements of Section 800.2. Nominal sizes of lightweight coarse aggregates are as specified in AASHTO M 195 as 3/4, 1/2 or 3/8 in. (19.0, 12.5 or 9.5 mm).

The use of lightweight aggregate in concrete in a particular component of a structure will be shown on the Plans or called for in the specifications.

*Add the following to Subsection 500.3.06:*

F. Air Content Testing of Structural Lightweight Concrete

Provide testing of structural lightweight concrete per Subsection 500.3.04.F.1.g, and in accordance with test frequencies outlined in the Sampling, Testing and Inspection Quick Guide. Perform air content by a technician meeting the requirements of Subsection 500.3.01.C and who is approved by the Engineer. Submit test results to the Engineer. No separate measurement for payment will be made for testing of structural lightweight concrete.

MATERIALS AND RESEARCH

# **Georgia Department of Transportation**

## **Technical Provisions For Design-Build Agreement P.I. No. 110610**

### **I-85 Widening**

#### **Attachment 13-1 Special Provisions SP 500 LRFD**

## Department of Transportation

### State of Georgia

### Special Provision

## PROJECT NO.: 110610-, GWINNETT & BARROW COUNTY

### P.I. NO.: 110610-

### Section 500—Concrete Structures

*Add the following to 500.1.03.A:*

The Contractor is responsible for all concrete mix designs. Submit a mix design for approval to the Office of Materials and Research. Include the sources, actual quantity of each ingredient, design slump, design air and laboratory results that demonstrate the ability of the design to attain the required compressive strength at 28 days.

Prepare and test at least 8 cylinders according to ASTM C192 and AASHTO T22 to ensure that the demonstrated laboratory compressive strength at 28 days exceeds the minimum acceptance strength (X). Make the specimens from two or more separate batches with an equal number of cylinders made from each batch. The minimum acceptance strength is:

$$X = f'_c + 500 \text{ psi} \quad (X = f'_c + 3.4 \text{ MPa})$$

Where,  $f'_c$  is the required minimum compressive strength at 28 days for Class D concrete as shown in Table 1—Concrete Mix Table.

*Add the following to Table 1—Concrete Mix Table:*

**Table 1—Concrete Mix Table**

| English           |                               |   |                                |   |     |  |     |   |
|-------------------|-------------------------------|---|--------------------------------|---|-----|--|-----|---|
| Class of Concrete | (2) Coarse Aggregate Size No. | (1 & 6) Minimum Cement Factor lbs/yd <sup>3</sup> | Max Water/Cement Ratio lbs/lbs | (5) Slump Acceptance Limits (in)<br>Lower - Upper |     | (3 & 7) Entrained Air Acceptance Limits (%)<br>Lower - Upper |     | Minimum Compressive Strength at 28 days (psi) |
| Class D           | 57,67                         | 650   | 0.445                          | 2   | 4   | 3.5  | 7.0 | 4000  |
| Metric            |                               |   |                                |   |     |  |     |   |
| Class of Concrete | (2) Coarse Aggregate Size No. | (1 & 6) Minimum Cement Factor kg/m <sup>3</sup>   | Max Water/Cement Ratio kg/kg   | (5) Slump Acceptance Limits (mm)<br>Lower - Upper |     | (3 & 7) Entrained Air Acceptance Limits (%)<br>Lower - Upper |     | Minimum Compressive Strength at 28 days (MPa) |
| Class D           | 57,67                         | 386   | 0.445                          | 50  | 100 | 3.5  | 7.0 | 28  |

*Delete Subsection 500.3.04.F.1.b*

*Add the following to Subsection 500.3.04.F.1:*

f. Class D—Bridge superstructure concrete or as called for on the Plans

# **Georgia Department of Transportation**

## **Technical Provisions For Design-Build Agreement P.I. No. 110610**

### **I-85 Widening**

#### **Attachment 13-1**

#### **Special Provisions**

#### **SP 500 Mass Concrete**

March 11, 2016

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA  
SPECIAL PROVISION**

**PROJECT NO.: 110610-, GWINNETT & BARROW COUNTY**

**P.I. NO.: 110610-**

**Section 500—Concrete Structures**

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*Add the following to Subsection 500.1.02:*

**B. Referenced Documents**

“Guide to Mass Concrete”, ACI 207.1R-05.

“Report on Thermal and Volume Change Effects on Cracking of Mass Concrete”, ACI 207.2R-07.

“Cooling and Insulating Systems for Mass Concrete”, ACI 207.4R-05.

“Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete”, ACI 211.1-91

“Control of Cracking Concrete Structures”, ACI 224R-01.

“Specification of Structural Concrete”, Section 8, ACI 301-10.

“Compressive Strength of Cylindrical Concrete Specimens”, AASHTO T 22-10

“Making and Curing Concrete Test Specimens in the Laboratory”, ASTM C192

*Add the following to Subsection 500.3.05:*

**AM. Mass Concrete**

Mass concrete is defined as “Any large volume of concrete with dimensions large enough to require that measures be taken to cope with the generation of heat and attendant volume change to minimize cracking”. Any concrete element with a least plan dimension greater than 5ft (or greater than 6 ft diameter for a drilled shaft) shall be designated as mass concrete and will use this specification. To account for variability in as-built dimension versus plan dimension, such as telescoping casing during construction, any concrete element with a least as-built dimension greater than 5 ½ ft (or great than 6 ½ ft diameter for a drilled shaft) shall be designated as mass concrete and use this specification. The introduction of a construction joint at a dimension less than 5 ft does not ensure that the maximum temperature attained by or the differential temperature in concrete is adequately controlled. Proposals for large volume concrete shall thus be evaluated based on the heat development and a Thermal Control Plan.

**a. Temperature Specifications for Mass Concrete**

Mass concrete shall conform to the concrete acceptance criteria and the following temperature requirements to prevent delayed ettringite formation (DEF) and thermally induced stress cracks:

1. The maximum allowable internal temperature of mass concrete meeting the requirements of Subsection 500.3.05.AM.b.1, shall not exceed 158 °F.
2. The maximum temperature differential between interior and exterior portions of the designated mass concrete element shall not exceed 35 °F.
3. The maximum temperature of the concrete when delivered and prior to placement shall be 85 °F.

**b. Materials Selection and Mix Design Development**

Materials used for mass concrete shall conform to the provisions in Section 500-Concrete Structures of *GDOT Standard Specifications-Construction of Transportation Systems* and the following requirements. When in conflict, materials shall conform to the special provisions below rather than those in Section 500.

1. Use Class F fly ash (no Class C fly ash is allowed), granulated iron blast-furnace slag or other pozzolans, if approved by the Department in all mass concrete. Slag may comprise no more than 75% by mass of total cementitious and pozzolanous materials. Class F fly ash may comprise no more than 40% by mass of total cementitious and pozzolanous materials. When a combination of multiple different pozzolans is used, the total amount may be no more than 75% by mass of total cementitious and pozzolanous materials.
2. High-early-strength (ASTM C150 Type III or ASTM C1157 HE) cement, metakaolin, silica fume calcium chloride and accelerating type admixtures shall not be used unless an adiabatic temperature study is completed showing temperature rise significantly less than that of plain unmodified concrete.
3. A retarding admixture, pretested with the job materials under job conditions, may be permitted to prevent cold joints due to the quantity of concrete placed, as approved by the Engineer.
4. Coarse aggregate larger than #5 stone maximum size aggregate is permitted to be used for mass concrete, if approved by the Engineer.
5. Other materials and/or mix designs may be proposed to the Engineer for approval, with documentation that the proposed mix designs meet temperature specifications from Subsection 500.3.05.AM.a for mass concrete.

6. Laboratory-designed mix proportions of materials are permitted for commonly used combinations of materials. Request these mixes in writing from the State Materials Engineer specifying the class of concrete and the source of ingredients.
7. Degree of Alkali-Silica Reactivity (ASR) of either fine or coarse aggregate is determined by testing the aggregates in ASTM C1260, or ASTM C1567 (either expansion shall be less than 0.10% after 14 days immersion). Unless the results of petrography indicate a significant change in the composition of materials in quarries, ASTM 1293 (expansion <0.04% at 1 year) is not required to be conducted, before a mix design can be approved by the Engineer. Alternatively obtain low ARS risk aggregate materials from certified suppliers.
8. The mixture will be capable of demonstrating a laboratory compressive strength at 28 days meeting the requirements of Table 1 – Concrete Mix Table, *Subsection 500.1.03.A*. Compressive strength will be determined based upon result of six cylinders prepared and tested in accordance with AASHTO T 22 and ASTM C192.

**c. Thermal Control Plan**

At least 30 calendar days prior to placing any concrete defined as mass concrete, the contractor shall submit to the Engineer for approval a Thermal Control Plan (TCP). The TCP shall show complete analysis of the anticipated thermal developments in the mass concrete elements for all expected project temperature ranges using the proposed mix design, casting procedures and materials. A primary focus of the TCP is actions to take when any of the temperature controls noted in Subsection 500.3.05.AM are exceeded or are anticipated to be exceeded. As a minimum, the TCP shall include details about the following:

1. Concrete mix design showing composition, proportions, and sources for all components.
2. Proposed methods to control concrete temperature at time of placement, such as pre-cooling of raw materials or concrete.
3. Duration and method of curing.
4. Calculations of maximum concrete temperatures for the range of expected air, water (for underwater construction) and concrete temperatures.
5. Proposed methods to control maximum temperature during curing. A mechanical cooling system may be used to control the internal temperature of mass concrete during curing but shall be designed in conformance with the Thermal Control Plan. If a mechanical cooling system is used, the plans for the cooling system operation and final grouting after cooling shall be submitted to the Engineer for approval.
6. When the maximum concrete temperature nears 140 °F, notify the Engineer and take corrective measures immediately to retard further increase in the temperature to limit it to the 158 °F maximum. Utilize the mechanical cooling system, if installed, to lower the overall temperature. Other active measures may include, but not limited to

for any further pours: chilled water for mixing, precooling aggregate stockpiles, ice for mixing water, nitrogen gas, and shade for aggregate stockpiles. Cease placement of concrete until the maximum temperature has been lowered.

7. Proposed methods to control temperature differentials during curing that could include insulation for the forms and exposed portions of concrete. Contractor must take actions that prevent the exterior surfaces of the concrete from getting too cool, too quickly such as using insulation or heater or by preventing the core from getting too hot.
8. When the internal concrete temperature differential between interior and exterior concrete nears 30°F, notify the Engineer and take corrective measures immediately to retard further increase in the temperature differential to limit it to the 35°F maximum. Utilize the mechanical cooling system, if being use, to lower the internal temperature. Other active measures may include, but not limited to: chilled water for mixing, precooling aggregate stockpiles, ice for mixing water, nitrogen gas, and shade for aggregate stockpiles. Cease placement of concrete until the temperature differential has been lowered.
9. Calculations of maximum temperature gradients within each concrete element during curing. Calculations shall include maximum possible temperature induced tensile stress in the concrete in addition to tensile stresses at 1 day, 3 days, 7 days, 28 days, and 56 days after placement. The thermal calculation model and/or computational software shall be submitted to the Engineer for approval.
10. Temperature monitoring and recording system, that shall consist of temperature sensors connected to a data acquisition system. The temperature sensor types and locations shall be specified.
11. Results of strength tests of sample cylinders. The concrete shall attain the specified strength at an age (28 or 56 days) as specified by the Engineer. Match curing of concrete is required. Match curing shall be conducted according to temperature history obtained using thermocouples typically 4 inches from surface and at the centroid of the concrete pour. The depth of the thermocouple may need to be established by the depth of rebar or other anchoring structure (See Subsection 500.3.05.AM.d.3 and Subsection 500.3.05.AM.d.5).
12. For all mass concrete construction, the TCP shall be developed by a Professional Engineer, licensed in the State of Georgia, who shall be competent in the modeling, design, and temperature control of mass concrete with at least three mass concrete projects experience that can be verified by the Department.

Place no concrete until the mass concrete mix design and the proposed TCP is reviewed and approved by the Engineer. If concrete design mixture is changed, the TCP must be updated and approved by the Engineer.

#### **d. Temperature Monitoring and Recording System**

1. Install within the concrete placed in each mass pour and in the surrounding environment of the concrete, temperature sensing devices (thermocouples) of a type approved by and at locations based on the plan approved by the Engineer.

2. The sensing system will contain as a minimum two independent sets of sensing devices in order to assure readings if one of the systems fail. The sensing devices shall be accurate to within 2°F range.
3. Thermocouples shall be placed at the centroid of the pour, or wherever the point of expected maximum temperature is anticipated. Additional thermocouples shall be placed on the exterior to monitor the maximum temperature differential. Ensure the thermocouples are placed at a depth of 2 to 6 inches below the surface.
4. The temperature monitoring and recording system for mass concrete shall consist of temperature sensors connected to a data acquisition system capable of printing, storing, and downloading data to a computer. Data shall be printed and submitted to the Engineer daily with a copy sent to Office of Materials and Testing.
5. Two independent sets of sensing devices shall be placed at each of the following locations and readings to be taken hourly: (1) center of the mass pour; (2) midpoint of the side which is the shortest distance from the center; (3) midpoint of the top surface; (4) midpoint of the bottom surface; and (5) corner of the mass pour which is furthest distance from the center. Ensure the thermocouples are placed at a depth of 2 to 6 inches below the surface.

**e. Placing and Curing Mass Concrete**

When placing and curing mass concrete do the following:

1. Maintain a temperature differential of 35 °F or less between the interior and exterior portions of the designated mass elements.
2. Monitor and maintain records of the concrete temperature, beginning with casting and continuing until the maximum temperature is reached and begins decreasing to a differential of no more than 35°F from the mean annual ambient temperature of the surrounding environment, for three consecutive days.
3. The contractor shall suggest consolidation techniques based on the placement technique to be used for mass concrete. The consolidation technique shall be reviewed and approved by the Engineer before start of placement of mass concrete. Slump tests or slump-flow (ASTM C 1611) tests, as applicable, shall be used to provide quality control from batch to batch.
4. Maintain a minimum concrete placement rate of 30 cubic yards per hour or as designated on the plans or in the Special Provisions. Any requested change from this placement rate is to be approved by the Engineer.

**f. Acceptance**

Mass concrete shall conform to the concrete acceptance criteria and the temperature requirements as stated earlier to prevent delayed ettringite formation (DEF) and thermally induced stress cracks.

If the Contractor fails to conform to any of the above temperature requirements in any one pour, any additional mass concrete pours will cease. The Engineer may, at its sole discretion, direct that the concrete be removed or otherwise mitigated, at no cost to the Department. The contractor shall revise the Thermal Control Plan and design calculations to correct the problem and resubmit the revised Thermal Control Plan. Mass concrete placement shall not begin until the Engineer has approved the revised Thermal Control Plan. No extension of time or compensation will be made for any rejected mass concrete element or revisions of the Thermal Control Plan.

Office of Materials and Testing



# **Georgia Department of Transportation**

## **Technical Provisions**

### **For**

## **Design-Build Agreement**

### **P.I. No. 110610**

## **I-85 Widening**

### **Attachment 13-1**

## **Special Provisions**

## **SP 511 Mechanical Bar Splice**

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA  
SPECIAL PROVISION**

**PROJECT NO. 110610-, GWINNETT & BARROW COUNTY**

**P.I. NO. 110610-**

**Section 511 – Reinforcement Steel**

---

*Add the following to 511.2 Materials, B. Fabrication:*

2. **Reinforcement Steel Couplers.** When couplers are indicated on the Plans, use mechanical butt splices from an approved source listed on QPL 93.

Provide mechanical butt splices which develop a minimum of 125% of the guaranteed yield strength of the reinforcing steel to be spliced. Limit the total slip of the reinforcing bars within the splice sleeve after loading to 30 kips per square inch (207 MPa) and relaxing to 3 kips per square inch (21 MPa) to no more than the following, as measured between gauge points clear of the splice sleeve: 0.010 of an inch (.25mm) for reinforcing bars no. 14 (43) or smaller, or 0.030 of an inch (.76mm) for reinforcing bars no. 18 (57).

Prior to installation on GDOT projects, the contractor is required to submit job-control samples for testing to the Office of Materials and Testing. This is to ensure that the installer is qualified to construct the units. Make test specimens in the presence of the Engineer or his authorized representative using reinforcing steel consigned for the work. A test specimen consists of a splice made at the job site to connect two 24 inch (600mm) or longer bars using the same splice materials, position, location, and equipment, and following the same procedures to be used to make splices in the work. Prior to incorporating couplers into the work, make and test three specimens that meet the above criteria.

Perform all testing required above by the Office of Materials and Testing or at a testing laboratory approved by the Department.

If threaded couplers are used, equip them with approved devices which will prevent rotation after installation.

After installation, clean all couplers with a power wire brush or by other approved methods and recoat the couplers with a material prepared and recommended by the coating manufacturer.

Install the couplers in strict accordance with the manufacturer's instructions and as approved by the Engineer.

All costs for the couplers, test samples (including reinforcing steel for tests) and testing of couplers shall be included in the costs of reinforcing steel.

**Georgia Department of Transportation**

**Technical Provisions**

**For**

**Design-Build Agreement**

**P.I. No. 110610**

**I-85 Widening**

**Attachment 13-1**

**Special Provisions**

**SP 865 Manufacture of Precast Concrete**

**Members**

**Georgia Department of Transportation**

**State of Georgia**

**Special Provision**

**PROJECT NO.: 110610-, GWINNETT & FULTON COUNTY**

**P.I. NO.: 110610-**

**Section 865—Manufacture of Prestressed Concrete Bridge Members**

---

*Delete Subsection 865.1 and substitute the following:*

This section includes the following requirements for precast-prestressed concrete bridge members and piling using High Performance Portland cement concrete as shown in the Plans:

- Manufacturing
- Inspecting
- Testing
- Marking
- Painting
- Rubbing as specified
- Plant handling
- Storing
- Shipping

The term “precast-prestressed concrete” is referred to as “prestressed concrete” in the rest of this Section.

*Add the following to Subsection 865.2:*

| <b>Material</b>         | <b>Section</b> |
|-------------------------|----------------|
| Concrete, Class AAA HPC | 500            |

*Add the following to the end of Subsection 865.2.01.B.7.a.6:*

Optional Method of Curing for Release Strengths with HPC: Temperature match curing (“Sure Cure” or equivalent methods) is allowed for specimens used to determine when stress may be transferred to the concrete for High Performance Concrete Units.

# **Georgia Department of Transportation**

## **Technical Provisions**

### **For**

## **Design-Build Agreement**

### **P.I. No. 110610**

## **I-85 Widening**

### **Attachment 16-1**

## **GDOT Ramp Meter Warrants**



To Whom it may Concern:

The Georgia Department of Transportation will warrant the use of a ramp meter if either of the below criteria are satisfied and adequate acceleration distance is available.

**Warrant 1 – Freeway Right lane and Entrance Ramp Flow Rate**

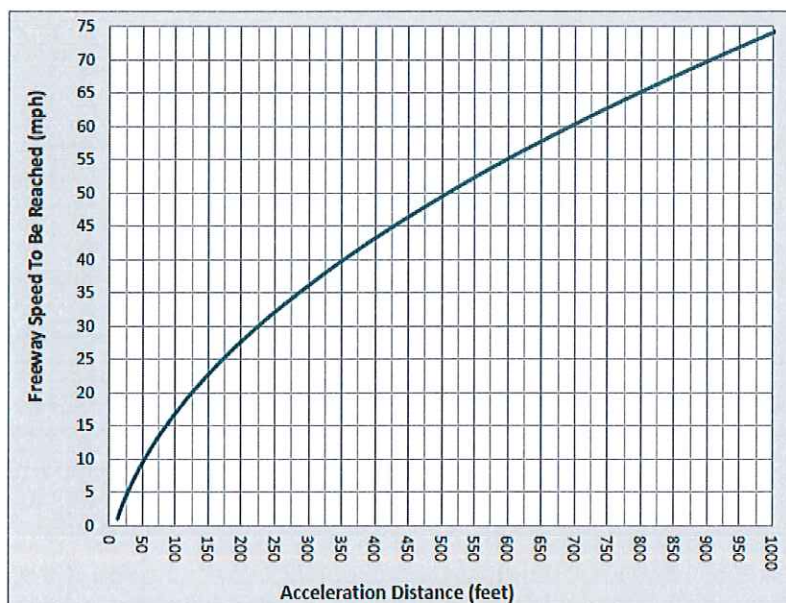
- During a typical 15-minute period, the combined flow from the entrance ramp and right most lane of the freeway is greater than 2,000 vehicles per hour and the entrance ramp has greater than 400 vehicles per hour.

**Warrant 2 – Freeway Speed**

- During a typical 15-minute period, the general purpose lanes on the freeway (Excluding flex, entrance, and HOV lanes) have an average speed less than 55 mph due to recurring congestion adjacent to the entrance ramp or within 2 miles downstream of the entrance ramp in question.

Acceleration distance shall be determined using the below tables:

| Freeway Speed to be Reached (mph) | Acceleration Distance (feet) |
|-----------------------------------|------------------------------|
| 55                                | 600                          |
| 65                                | 800                          |
| 70                                | 900                          |



Source: Lehman Center for Transportation Research. Integrated Database and Analysis System for the Evaluation of Freeway Corridors for Potential Ramp Signaling. Florida Department of Transportation, 2011.

Design speed used for stop bar placement will be 55 mph unless otherwise stated by the Department.

Sincerely,

A handwritten signature in black ink, appearing to read "Andrew J. Heath", is written over a horizontal line.

Andrew J. Heath, P.E.  
State Traffic Engineer  
Georgia Department of Transportation

CC: Mark Demidovich, Assistant State Traffic Engineer  
Matt Glasser, Assistant State ITS Engineer  
Marc Plotkin, ITS Engineer  
File

# **Georgia Department of Transportation**

## **Technical Provisions For Design-Build Agreement P.I. No. 110610**

### **I-85 Widening Project**

#### **Attachment 17-1**

#### **Surge Protection**

## **Attachment 17-1 - Surge Protection Systems and Devices**

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### **Section 17-1 Surge Protection Systems and Devices**

#### **17-1.1 General Description**

This work consists of furnishing materials and installation of Surge Protection Devices for traffic signal and intelligent transportation system implementation.

It also includes all test periods, warranties and guarantees as designated in subsequent sections, and response to maintenance and operational issues as described in subsequent sections.

##### **17-1.1.01 Definitions**

General Provisions 101 through 150.

##### **17-1.1.02 Related References**

###### **A. Standard Specifications**

Section 106—Control of Materials

Section 500—Concrete Structures

Section 501—Steel Structures

Section 631—Changeable Message Signs

Section 636 – Highway Signs

Section 639—Strain Poles for Overhead Sign and Signal Assemblies

Section 680—Highway Lighting

Section 681—Lighting Standards and Luminaires

Section 682—Electrical Wire, Cable, and Conduit

Section 915—Mast Arm Assemblies

Section 923—Electrical Conduit

Section 925—Traffic Signal Equipment

Section 935—Fiber Optic System

Section 936—CCTV System

Section 937—Video Detection System

Section 938—Radar Detection System

Section 939—Communications & Electronic Equipment

Section 940—Navigator Integration

###### **B. Referenced Documents**

National Electrical Manufacturers Association (NEMA) Traffic Control Systems Standards No. TS 1

NEMA Traffic Control Systems Standards No. TS 2

AASHTO Roadside Design Guide

The Manual on Uniform Traffic Control Devices (MUTCD), current edition

National Electrical Code (NEC)

UL 467, Grounding and Bonding Equipment;

UL 497A, Standard for Secondary Protectors for Communications Circuits;

UL 497B, Standard for Protectors for Data Communications and Fire-Alarm Circuits;

UL 497C, Standard for Protectors for Coaxial Communications Circuits;

UL 752, Standard for Bullet-Resisting Equipment;

UL1008, Standard for Transfer Switch Equipment;

UL 1449, Standard for Surge Protective Devices; and the NEC.

Ensure that lightning protection systems conform to the requirements of NFPA 780, Standard for the Installation of Lightning Protection Systems.

GDT 7

GDT 24a

GDT 24b

GDT 67

### **17-1.1.03 Submittals**

Submit to the Engineer, SPD material specifications information on all materials proposed for use on the project. The Engineer will forward the materials submissions to the District Traffic Operations offices, which will forward the information onto the Traffic Operations offices at the TMC building.

#### **A. Review**

For all submittals, the State Traffic Signal Design Engineer's review of the material should be completed within thirty (30) days from the date of receipt of the submission unless otherwise specified. The State traffic Signal Design Engineer will advise in writing, as to the acceptability of the material submitted.

All material submittals for equipment and materials used on the project will be reviewed by the Department's Traffic Signal Electrical Facility (TSEF). The material review should be completed within thirty (30) days from the date of receipt of the material submission unless otherwise specified. The State Traffic Signal Engineer will advise in writing as to acceptability of materials to be used on the project.

The State Traffic Signal Design Engineer may determine that the item is approved, in which case no further action is required; or the item may be partially or totally rejected in which case, modify the submittal as required and resubmit within fifteen (15) days. At this time, the review and approval cycle described above begins again.

#### **B. Submittal Costs**

Include the costs of submittals within the price paid for individual bid items. No additional compensation will be made.

### **17-1.2 Materials**

#### **17-1.2.01 General**

Furnish and install grounding and Surge Protective Devices (SPDs) for all ITS devices to protect the devices from lightning, transient voltage surges, and induced current. Use only new materials meeting the requirements of this section. Use equipment or materials that have been tested and approved for the specific use intended by a NRTL, recognized by the Occupational Safety and Health Administration, in accordance with 29 CFR 1910.7 and that also meet the following requirements.

Install SPDs on all power, data, video and any other conductive circuit. Use only equipment and components that meet the minimum requirements of this specification. All SPD shall operate as specified during and after being subjected to the transients, temperature, voltage, humidity, vibration, and shock tests described in National Electrical Manufacturers Association (NEMA) TS2, 2.2.7, 2.2.8, and 2.2.9.

#### **A. Temperature and Humidity:**

Equipment shall operate as specified when the ambient temperature and humidity are within the following specified limits:

- The operating ambient temperature range shall be from - 30° to 165°F (-34.4° to 73.8°C).
- The storage temperature range shall be from -50° to 185°F (-45.5° to 85°C).
- The relative humidity shall not exceed 95 percent, non-condensing

**B. Vibration:**

The equipment shall operate as specified and maintain its physical integrity when subjected to a vibration of 5 to 30 Hz up to 0.5 gravity applied in each of three mutually perpendicular planes.

**C. Shock:**

The equipment shall suffer neither permanent mechanical deformation nor any change that renders the unit inoperable when subjected to a shock of 10 gravities applied in each of three mutually perpendicular planes.

**17-1.2.01 Installation:**

Provide all ITS field installation sites with both primary and secondary surge protection on the AC power. Connect the primary surge protection at the service entrance or main disconnect. Connect the secondary surge protection on the power distribution to the equipment.

**A. SPD at Power Entry Point:**

Install a SPD at the closest termination/disconnection point where the supply circuit enters the ITS device cabinet. Locate the SPD on the load side of the main disconnect and ahead of any and all ITS electronic devices. Configure the SPD to operate at 120 volt single phase (i.e., line, neutral and ground) or 120/240 volt single phase (line 1, line 2, neutral and ground) as required to match the supply circuit configuration. Ensure that the SPD maximum surge current rating is 80kA per phase or greater. Verify that the SPD has been labeled to indicate that the unit is UL listed and meets the requirements of UL 1449, Third Edition.

Ensure that the SPD has a visual indication system that monitors the weakest link in each mode and shows normal operation or failure status and also provides one set of normally open (NO)/normally closed (NC) Form C contacts for remote alarm monitoring. The enclosure for a SPD shall have a NEMA 4 rating.

**B. SPD at Point of Use:**

Install a SPD at the point the ITS devices receive 120 volt power. Ensure that the units are rated at 15 or 20 amps load and a minimum of 20kA of surge current capacity and configured with receptacles.

Ensure that these units have internal fuse protection and provide common mode (L+N-G) protection.

**C. SPD for Low-Voltage Power, Control, Data and Signal Systems:**

Install a specialized SPD on all conductive circuits including, but not limited to, data communication cables, coaxial video cables, and low-voltage power cables. Ensure that these devices comply with the functional requirements shown in Table 785-1 for all available modes (i.e. power L-N, N-G; L-G, data and signal center pin-to-shield, L-L, L-G, and shield-G where appropriate).

| SPD Minimum Requirements |                  |           |                            |                             |
|--------------------------|------------------|-----------|----------------------------|-----------------------------|
| Circuit Description      | Clamping Voltage | Data Rate | Surge Capacity             | Maximum Let-Through Voltage |
| 12 VDC                   | 15-20 V          | N/A       | 5kA per mode<br>(8x20 µs)  | <150 Vpk                    |
| 24 VAC                   | 30-55 V          | N/A       | 5kA per mode<br>(8x20 µs)  | <175 Vpk                    |
| 48 VDC                   | 60-85 V          | N/A       | 5kA per mode<br>(8x20 µs)  | <200 Vpk                    |
| 120 VAC at POU           | 150-200 V        | N/A       | 20kA per mode<br>(8x20 µs) | <550 Vpk                    |

| SPD Minimum Requirements |                  |               |                                |                             |
|--------------------------|------------------|---------------|--------------------------------|-----------------------------|
| Circuit Description      | Clamping Voltage | Data Rate     | Surge Capacity                 | Maximum Let-Through Voltage |
| Coaxial Composite Video  | 4-8 V            | N/A           | 10kA per mode (8x20 $\mu$ s)   | <30 Vpk                     |
| RS422/RS485              | 8-15 V           | Up to 10 Mbps | 10kA per mode (8x20 $\mu$ s)   | <30 Vpk                     |
| T1                       | 13-30 V          | Up to 10 Mbps | 10kA per mode (8x20 $\mu$ s)   | <30 Vpk                     |
| Ethernet Data            | 7-12 V           | Up to 1 Gbps  | 1kA per mode (10x1000 $\mu$ s) | <30 Vpk                     |

**17-1.2.01 Warranty for Surge Protective Devices:**

Provide a SPD that is warranted by its manufacturer against any failures caused by electrical events, including direct lightning strikes, for a period of not less than 10 years or the SPD device manufacturer's standard warranty period, whichever is greater.

The term "failure" for warranty replacement is defined as follows:

- Parallel-connected, power-rated SPD units are considered in failure mode when any of the visual indicators shows failure mode when power is applied to the terminals at the unit's rated voltage, or the properly functioning over-current protective device will not reset after tripping.
- Series-connected, low-voltage power, data, or signal units are considered in the failure mode when an open circuit condition is created and no data/signal will pass through the SPD device or a signal lead is permanently connected to ground.

In the event that the SPD, including any component of the unit, should fail during the warranty period, the entire SPD shall be replaced by the manufacturer at no cost to the Department. Costs relating to the removal of the SPD, shipping and handling, and the reinstallation of the SPD shall be paid by the Department.

**Georgia Department of Transportation**  
**VOLUME 3**  
**Programmatic Technical Provisions**  
**For the I-85 Widening Project**  
**Design-Build Agreement**  
**P.I. No.110610**

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# 1 GENERAL

*Refer to volume 2.*

## 2 PROJECT MANAGEMENT

### 2.1 Project Management Requirements

The DB Team shall establish and maintain an organization that effectively manages all Elements of the Work. The DB Team shall submit the following management plans for GDOT review:

- Design Schematic of the Project (Project Differences from Reference Information Documents and ATC concepts provided at time of Proposal Submission);
- Project Quality Management Plan (QMP), Design QMP, and Construction QMP, pursuant to Section 2.3;
- Project Baseline Schedule, pursuant to Section 2.2;
- The Public Information and Communications Plan (PICP), pursuant to Section 3;
- Demolition and Abandonment Plan, pursuant to Section 10.2;
- Transportation Management Plan (TMP), pursuant to Section 18.2.1;
- Construction Maintenance Limits Plan, pursuant to Section 19.2; and
- Construction Phasing Plan and Submittals Schedule, if applicable, for each construction phase, pursuant to Section 23.1.

#### 2.1.1 Design Quality Assurance

The DB Team shall develop an overall Quality Management Plan. The Quality Management Plan shall comprise a Design Quality Assurance (QA) Plan to include the following:

- Overall design QA process.
- Design Quality Control (QC) Plan including procedures and documentation.
- Design standards to be adhered to, including but not limited to all references listed in Volume 3 Manuals.
- Design criteria specific to the individual project.
- Procedures for preparing and checking individual plans, specifications, estimates, calculations, and other submittal items.
- Procedures for preparing and checking any unique or highly specialized designs.
- Procedures for coordinating work performed by different persons for related tasks, to ensure that conflicts, omissions, or errors do not occur between drawings or between drawings and other design documents.
- Procedures for coordinating and obtaining permits from permitting agencies, utility companies, and railroad companies, as applicable. This shall include procedures for ensuring that all permitting, utility, and railroad requirements are incorporated into the design of the project; and procedures for coordinating submittals and agency reviews such that the overall project schedule is not delayed.
- Level, frequency, and methods of review of the adequacy of the total project design. Methods by which all Final Plans shall be independently reviewed;

verified for constructability, completeness, clarity, and accuracy; and back-checked.

- Level and frequency of audit and oversight design reviews (concerning QA and validity of consultant payments) to be performed by GDOT, the Federal Highway Administration (FHWA) (as applicable), independent consultants, and/or other agencies (as applicable).
- Procedures for reviewing and checking design drawings and documents required during construction.
- Qualifications for all key design personnel.
- Documentation and submission procedures to ensure that the established design QA procedures have been followed.
- QA/QC statement letter is required to be submitted with all design submittals.

The design QA procedures will be part of the DB Team's Quality Management Plan to be developed and provided by the DB Team. The Quality Management Plan shall satisfy the requirements stated in the Technical Provisions.

### **2.1.2 Construction Quality Control / Quality Assurance**

*Refer to volume 2.*

### **2.1.3 Environmental Monitoring**

The DB Team shall adopt a proactive approach for overseeing and inspecting environmental Work during construction to help guard against unanticipated impacts to the environment. Unanticipated impacts to the environment can lead to fines and schedule delays. The DB Team shall be responsible for complying with the scope of environmental commitments from the Environmental Documents, including but not limited to the NEPA/GEPA document, environmental permits, and other environmental approvals.

### **2.1.4 Right of Way**

The DB Team shall provide Right of Way plans for any required Additional Properties identified in Section 7.2.

### **2.1.5 Safety and Security**

The DB Team shall be responsible for the safety of its personnel and of the general public affected by the Project.

DB Team shall submit to GDOT for acceptance a comprehensive safety plan ("Safety Plan") that is consistent with and expands upon the preliminary safety plan submitted with the Proposal. The Safety Plan shall fully describe DB Team's policies, plans, training programs, Work Site controls, and Incident response plans to ensure the health and safety of personnel involved in the Project and the general public affected by the Project during the Term of the Agreement.

DB Team's Safety Plan shall address procedures for immediately notifying GDOT of all Incidents arising out of or in connection with the performance of the Work, whether on or adjacent to the Project.

This section shall define the requirements to be incorporated into the Project in order to ensure that the Project is a safe and secure environment for all individuals working on the Project. The prevention of accidents during execution of the project shall be a primary concern of all participants, and shall be the responsibility of all levels of management. Safety shall never be sacrificed for production, but shall be considered an integral part of an efficient and quality Project.

It is suggested that safety and security procedures include the following:

- Safety and health standards to be adhered to.
- Roles and responsibilities of the safety/security staff.
- Contractors (meaning prime contractors and subcontractors combined) having a Safety Director and an accepted safety manual (or plan) available to all employees.
- Contractors holding periodic on-site safety meetings.
- Contractors conducting periodic on-site safety inspections.
- Contractors providing safety training for all new employees, and refresher training for all employees.
- Contractors conducting drug screening for all new hires.
- Contractors establishing daily housekeeping and clean-up procedures.
- Possible employee sharing of accident prevention savings.
- Having first-aid and medical kits readily available.
- Having a site security plan, possibly including such items as restricted parking near vulnerable structures, physical barriers (fences, barricades, etc.), coordinated efforts with local law enforcement officials during heightened threat levels, video surveillance, alarm systems, emergency telephones, etc.
- Having an emergency preparedness and incident management plan, including roles and responsibilities, emergency evacuations, communications, first responder awareness training, and field drills.
- Establishment of an employee identification (ID) system.
- Level and frequency of audit and oversight safety/security reviews to be performed by GDOT, FHWA, independent consultants, and/or other agencies (as applicable).
- Safety and security periodic reporting (normally monthly).

In addition, appropriate threat and vulnerability assessments shall be made and taken into consideration throughout the Project's life cycle. The transportation elements of the project could have a significant impact on regional safety and security plans.

### **2.1.6 Traffic Management**

The DB Team shall develop a Transportation Management Plan and a traffic control plan for each phase of its Work. The DB Team's Transportation Management Plan and the traffic control plans shall comply with the requirements of Section 18.

### **2.1.7 Project Communications (Media and Public Information)**

Refer to Volume 2

### **2.1.8 Project Closeout**

The DB Team shall adhere to GDOT Standards and Specifications 105.16 for final inspection and acceptance as would normally occur on any Design-Bid-Build project.

### **2.1.9 Project Phasing**

The DB Team has the right to propose phasing the design and construction of the project to accelerate the schedule and provide added value. GDOT reserves the right to review, require revisions, or request additional conditions to the proposed phasing plan prior to acceptance. Each phase of the proposed plan will require a NTP. The Project Phasing may be proposed during the procurement phase or after the issuance of NTP 1

### **2.1.10 Reserved**

## **2.2 Project Schedule, Progress, and Payment**

Project Schedules shall mean any of the following: Preliminary Baseline Schedule, Project Baseline Schedule, Revised Baseline Schedule, Progress Schedule, Recovery Schedule, or As-Built Schedule, as further defined in this Section 2.2 and as appropriate for the context in which they are used.

### **2.2.1 General Schedule Requirements**

The DB Team shall create and maintain a complete and logical Project Schedule.. The Project Schedule shall be used to: plan, manage, and execute the Work, define the timeframe for completion of the Project, including all milestone commitments shown in Exhibit 9 Milestone Schedule; provide milestones of all major Submittals, including all design submittals and submittals shown in Volume 2, Section 23, Table 23-1; monitor progress, form the basis for progress payments, measure the impact of changes that occur during design and construction, and for planning, monitoring, and recording the Work, STRA and GDOT, Government Entities, and Customer Groups, will rely on Project Schedules for timing of reviews and oversight activities, and for coordinating with, monitoring, and evaluating the DB Team's progress.

The DB Team shall have the right to modify the Project Schedule, within the requirements and limitations of the DB Documents, as it deems necessary to properly represent the progress of the Work and the remaining Work to completion. The sequence of work as represented in the current submitted Project Schedule shall be at

all times the DB Team's plan for the execution of the Work and accurately record the Work completed at the time of that submittal.

The DB Team shall comply with the Critical Path Method (CPM) schedule requirements as defined in this Section and by reference, as described by and within the terms defined in the Associated General Contractors of America (AGC) publication, *Construction Planning and Scheduling*, latest edition, for design and construction scheduling, establishing the critical items of the Work, and measuring progress of the Work. In case of discrepancy between the DB Documents and *Construction Planning and Scheduling*, these DB Documents shall govern.

### 2.2.2 Staged Project Schedule Development

As the design is developed and the planning refined, it is intended that the Project Schedule shall represent the most accurate information known. Accordingly, a four-staged schedule development process shall be used as follows:

**Proposal Schedule:** Submitted with Proposal, it establishes the Completion Deadlines shown in Exhibit 9 of the Agreement; shows the general approach to the phasing and overall executing of the Work, and shows the cost-loaded Proposal Schedule (Schedule of Values) and Maximum Payment Curve to be within the limits of the Annual Cumulative Payment Cap Schedule identified in Article 5.2, Table 5.1 of Volume 1.

**Preliminary Baseline Schedule:** Submitted within 30 days of NTP 1, the Preliminary Baseline Schedule shall fully detail all Work authorized by NTP 1 and NTP 2, all Work required for issuance of NTP 3, and for all Work anticipated to be initiated within the first 120 days from NTP 1. Other NTP 3 Work can remain at a more summary detail level but shall accurately reflect the latest approach and planning for the prosecution of the Work. DB Team shall use the Preliminary Baseline Schedule as a foundation to prepare the Project Baseline Schedule. No resource loading will be required for the Preliminary Baseline Schedule. Once approved by GDOT, the Preliminary Baseline Schedule shall be cost-loaded for the first 120 days from NTP 1 and serve as the basis for payment for all Work prior to approval of the Project Baseline Schedule. The cost-loaded Preliminary Baseline Schedule (Preliminary SOV) and Maximum Payment Curve shall be within the limits of the Annual Cumulative Payment Cap Schedule. Upon approval, DB Team shall update the Preliminary Baseline Schedule and Preliminary SOV monthly until the Project Baseline Schedule is approved. Monthly updates shall meet the requirements for Progress Schedules.

**Project Baseline Schedule:** The Project Baseline Schedule shall fully detail all Work and activities necessary to complete the Work and shall accurately reflect the latest approach and planning for the prosecution of the Work, meeting all requirements of the DB Documents. The construction and Utility relocation activities shall be resource loaded. Once approved, it shall be cost-loaded and serve as the Baseline Schedule of Values (Baseline SOV) and be the basis for payment for the Project. The Baseline

SOV and Maximum Payment Curve shall be within the limits of the Annual Cumulative Payment Cap Schedule. Upon approval, DB Team shall update the Project Baseline Schedule and Baseline SOV monthly.

**Revised Baseline Schedule(s):** DB Team shall provide a Revised Baseline Schedule within 30 days of Final Design or once 30% completion of the Construction Work is achieved, whichever occurs sooner. From time-to time, GDOT may direct or the DB Team may request submittal of a Revised Baseline Schedule, which requested submittal is subject to prior GDOT approval. The Revised Baseline Schedule shall fully detail all Work and activities necessary to complete the Work, meeting all requirements of the DB Documents. The construction and Utility relocation activities shall be resource loaded. Upon approval by GDOT, the Revised Baseline Schedule shall become the new Project Baseline Schedule. Once approved, it shall be cost-loaded and serve as the Revised Baseline SOV and be the basis for payment for the Project. The Revised Baseline SOV and Maximum Payment Curve shall be within the limits of the Annual Cumulative Payment Cap Schedule. GDOT direction or approval of submittal of a Revised Baseline Schedule shall not constitute a Relief Event or Compensation Event.

### 2.2.3 Schedule Organization

The schedule shall include a Work Breakdown Structure (WBS) and activity codes to enhance the ability of the DB Team and GDOT to plan, analyze, monitor, and record the progress of the Work. The DB Team shall work with GDOT prior to submittal of the Preliminary Baseline Schedule, Project Baseline Schedule, and any Revised Baseline Schedule(s) to ensure an adequate WBS and activity codes have been developed and assigned to each activity to the satisfaction of GDOT. GDOT reserves the right to request additional WBS levels and activity codes be added throughout the project if changes to the scope or modifications to the Project Schedule warrant the need.

**Work-Breakdown Structure (WBS)** - The schedule activities shall be mapped to, organized by, and rolled-up to a deliverable-based, hierarchal WBS. The organization and breakdown of the WBS shall reflect the DB Team's overall approach to the planning, scheduling, and execution of the Work and shall conform to all Project-specific phasing, staging, sequencing, design and deliverable requirements.

The WBS shall be broken-down, at a minimum, to the following discrete levels: *Phase, Segment, Stage, Location, Work Element and Work Package*, such that each specific level of WBS throughout the schedule remains consistent with the order and hierarchy number of these required levels. The design phase WBS shall identify each design package required for construction phasing and sequencing and shall identify each stage of design. Expectations of these required minimum levels is further described below under Activity Code definition requirements. The DB Team may further develop and detail the base WBS, however any modifications cannot alter or interfere with the base WBS minimum requirements or the ability to summarize to the required minimum base WBS levels.

**Activity Codes** - The Project Schedule shall include, at a minimum, the following activity codes: Phase, Segment, Stage, Location, Work Type, Work Element, and Responsibility; where:

1. *Phase* – is the code value used to describe the Phase of Work, to include Project Management, Design, Right-of-Way, Utility Adjustments, Construction, Operations During Construction, and Maintenance During Construction.
2. *Segment* – is the code value used to describe the specific segments and sub-segments that the Project is broken down to as defined in the DB Documents or required or prudent per the DB Team's means and methods.
3. *Stage* – is the code values used to describe Project-specific staging, phasing, or sequencing as defined in the DB Documents or required or prudent per the DB Team's means and methods.
4. *Location* – is the code value used to describe a definable geographic area or region, including specific local roads, crossing streets, managed toll lanes, mainlines, ramps etc. and could be further defined by station-to-station sectioning.
5. *Work Element* – is the code value used to describe a discrete, definable element of the Work including each specific Bridge, Retaining Wall, Noise Wall, Building, and Drainage Run.
6. *Work Package* – is the code value used to further describe and supplement each Work Element including each specific bridge broken-down by substructure/ superstructure, individual bents/ spans, misc. finishes, etc.
7. *Work Type* – is the code value used to describe a specific type of Work, which includes Environmental, Roadway, Drainage, Structures (Bridges, Retaining Walls, Noise Walls), Landscaping, Traffic Related Elements, ITS, Traffic Management, Tolling, and Buildings.
8. *Responsibility* – is the code value used to describe the responsible party for the activity including work to be performed by GDOT, Utility Owner(s), or their subcontractor(s); and other 3rd Parties.

Activity Codes assigned to activities shall be "Project" level only (i.e. not Global). If the DB Team utilizes EPS level activity codes, all code values and definitions must be converted to Project level Activity Codes prior to beginning the export process. All Activity Code definitions shall include PI# in the description. The use of hierarchical activity code structure is acceptable to GDOT.

## 2.2.4 Scheduling Requirements

The DB Team will ensure all Project Schedules shall:

1. Be a CPM graphic diagram, computer prepared, utilizing the Precedence Diagram Method (PDM), and that clearly delineates the relationship between Work activities. The schedule network calculations shall be computer-generated and shall show a continuous flow of information from left to right with no arrows from right to left and shall be on a time scale of calendar days.
2. Clearly identify the critical path with no periods of inactivity.

3. Define the timeframe for completion and achievement of all Completion Deadlines (as defined in Volume 1, Exhibit 9) in adherence with all Project-specific phasing, staging, sequencing, design requirements, maintenance of traffic/closure or restriction periods, non-Work periods, or any other time restrictions.
4. Divide the Work to encompass all activities that occur over the life of the Project with appropriate durations and dependency relationships representing the DB Team's overall approach to the planning, scheduling, and execution of the Work. The DB Team shall be responsible for ensuring that all Work sequences are logical and that the schedule indicates their coordinated plan. Failure to include any element of Work required to perform the Contract or failure to properly sequence the Work shall not excuse the DB Team from completing all work within the Contract Time and Contract Sum.
5. Utilize standard and consistent activity identification numbers. Only use an alphanumeric coding structure with no spaces, hyphens, symbols or special characters to be used in the activity identification numbers. Periods are acceptable to use in the activity identification numbers.
6. Each activity shall describe Work associated with only one operation. Each activity name shall depict its scope in sufficient detail to readily identify, monitor, evaluate, and measure planning, design, and construction progress.
7. Ensure each activity shall be uniquely named and consist of a verb, noun, and location. Physical locations of activities within definable geometric limits (e.g., from station to station, within a single ramp, individual bents, individual spans, etc.) shall be included in the activity description and represented in the WBS and Activity Codes relative to each activity. Expectations of sufficient detail for activities is further described below:
  - (a) Sufficient detail in submittals indicates distinct activities for the development, submittal, review, and approval of all Submittals as called out in Volume 2, Section 23, other sections of the DB Documents, or as required to obtain any approval or acceptance by SRTA, GDOT, or any other Government Entity.
  - (b) Sufficient detail in permitting indicates distinct activities related to development, submittal, and approval for each required permit.
  - (c) Sufficient detail in right-of-way (ROW), right-of-entry (ROE), or easements indicates distinct activities related to appraisals, negotiations, settlements or agreements, and acquisitions for each specific parcel. Activities shall be included for the acquisition of any proposed ROW, whether State proposed/State acquired or DB Team proposed/DB Team acquired.
  - (d) Sufficient detail for material and equipment procurement includes shop drawings timeframes, fabrication, and delivery for all major procurement items; including identified long-lead items.
  - (e) Sufficient detail in structures Work indicates each bridge element (piles, footings, columns, caps, rebar, cure time, etc.) of individual bents; each element of Work in individual spans (girders, strip seal joints, formwork, rebar, concrete placements, cure time, etc.);

- individual approach slabs; railings; rebar for all the above as separate activities; and miscellaneous other bridge Work.
- (f) Sufficient detail in structures Work indicates each cast-in-place retaining wall broken-out by excavation, formwork, rebar, concrete placement(s), cure and back-fill and each mechanically-stabilized earth (MSE) wall broken-out by excavation, leveling pad, lifts, settlement periods, wall caps, and related Work.
  - (g) Sufficient detail in structures Work indicates each sound wall broken-out by excavation, post piles/foundations, panel foundations, posts, panels, and related Work.
  - (h) Sufficient detail in road Work indicates individual runs of pipe in drainage structures; individual box culverts; utility adjustments and relocations, individual detour roads; clearing and grubbing, embankment, excavation, base, paving layers, signing, striping, guardrail, water, sewer, roadway electrical and lighting, and other miscellaneous elements within definable geometric limits (e.g., from station to station, within a single ramp, etc.).
  - (i) Sufficient detail in intelligent transport systems (ITS) and tolling includes structure foundations, structure supports, conduits, cabinets, power conductors, fiber optic, ITS equipment, cable splicing, testing and start-up, and other related Work.
- 8. Provide sufficient time for all submittals and re-submittal review times as required in the DB Documents. All SRTA/ GDOT/ Government Entity review periods are to be 30 days unless otherwise specifically noted in Volume 2, Section 23 (Table 23-1).
  - 9. Include activities for interfaces with other projects, localities, municipalities and other Governmental Entities.
  - 10. Show responsibility for each respective activity; all activities to be performed by Subcontractors must include Subcontractor names.
  - 11. Be comprised of activities with durations in whole calendar days with a maximum duration of twenty (20) Working Days (160 hours), and not less than one (1) Day (8 hours), except activities relating to approvals, acceptances, and reviews by SRTA, GDOT, Governmental Entities, procurement activities, or as otherwise approved by GDOT. Durations for each activity shall represent the anticipated work effort to complete the task and will reflect the planned production rates utilized by the DB Team. Durations shall not conflict with any time or sequencing requirement in the DB Documents.
  - 12. Ensure all activities, except for the first and last activity, have a minimum of one predecessor activity and a minimum of one successor activity. Each activity shall have at least one “start” predecessor (i.e. FS0d, SS0d) and at least one “finish” successor (i.e. FS0d, FF0d).
  - 13. Contain sufficient hard logic (also known as vertical or construction logic) ties to ensure the integrity and logical soundness of the overall CPM Network.
  - 14. Contain sufficient preferential logic (also known as trade flow, horizontal, or soft logic) to communicate the DB Team’s overall approach to the Work, as

- well as specific means, methods, crew planning, and staffing. This includes logic ties that will dictate the planned flow of Work on an early date basis, as well as sufficient logic to ensure the late date basis represents a reasonable plan, production rates, and resource constraints that can be met.
15. No float for any activity can be in excess of one hundred and twenty (120) days without prior written consent by GDOT.
  16. Clearly identify all resource constraints, including planned crews, equipment, etc. This shall be accomplished explicitly using resource loading, activity relationships, and a detailed description in the schedule narrative.
  17. Identify self-imposed and regulatory non-Work periods arising out of climatological, environmental, or other restrictions or concerns. The DB Team may constrain Work scheduling in these periods by using special calendars or other equally effective means. All starts or completions imposed on the Project Schedule shall be clearly identified by the DB Team.
  18. Utilize the Gregorian calendar and satisfactorily account for anticipated adverse weather. With the Preliminary Baseline Schedule but no later than prior to submittal of the Project Baseline Schedule, DB Team shall provide in writing to GDOT its planned methodology to account for anticipated adverse weather days over the course of the Project. This may be achieved via activity durations, calendar non-work days clearly defined for weather, or other equally effective means as approved by GDOT.
  19. Not include any constraints, logic ties, and/or sequences not authorized by the DB Documents or deemed unreasonable by GDOT.
  20. Float is a jointly owned resource available to the Project and shall not be used to the sole benefit or detriment of either GDOT or the DB Team. Any and all methods utilized to sequester float calculations are prohibited. Project Schedules showing an early Completion Date shall consider the time between the scheduled Completion Date and the applicable contractual Milestone Deadline as Project float. Declaration of scheduled early Completion Date(s), either explicitly or implicitly, shall not entitle the DB Team to any provisions concerning benefits or relief, including incentives, disincentives, excusable delays, compensable delays, or liquidated damages.
  21. The DB Team is not entitled to and hereby waives any and all rights to delay damages in meeting any scheduled early completion date(s).
  22. Be regularly updated for actual progress (not calculated progress) through the data date, recalculated and plotted utilizing the retained logic method. The DB Team will revise, adjust, and recalculate Project Schedules to represent the current plan to complete the Work with no out-of-sequence progress activities.
  23. Contemporaneously and accurately memorialize progress including actual start, actual finish, and appropriate physical percent complete (manually input) for activities progressed as of the selected data date. All completed or started activities are to be at least one day prior to the data date. Actual dates inputted shall be limited to the active update period. Actual dates shown beyond the data date (i.e. to its right) shall not be permitted.

- Previously statused activities shall not be subsequently edited from update-to-update without prior written explanation to, and approval from GDOT.
24. Adequately forecast remaining dates for all outstanding activities that are in progress at the time of the update. This shall be accomplished through reasonable physical percent complete or updated remaining durations. Use of expected finish dates, for in-progress or not-started activities is not permitted. In cases where the full original duration has been expended, an accurate remaining duration to forecast the completion of an activity is required.
  25. Adequately reforecast early dates and late dates for all remaining activities.
  26. Ensure any interruptions to an activity, after that activity has begun, shall be added as a separate activity. The activity that is interrupted shall be split into two activities. The initial activity shall be marked as completed. The new activity shall have a FS relationship with the added interruption activity and shall retain all existing successor relationship(s) of the original activity.
  27. Not have any activities deleted after the Project Baseline Schedule has been approved. If an activity's scope has been eliminated from the schedule, the activity's description should be revised to include "- scope deleted," original duration reduced to zero days, logic removed, and dates contemporaneously actualized on the day immediately preceding the applicable data date.
  28. Ensure each activity maintains its unique identification number and activity name and scope, which shall not be modified or reassigned. If the DB Team chooses to incorporate additional detailed activities to supplement or replace the scope of an existing activity, the existing activity shall maintain its original activity ID and be converted to a level of effort summary activity that spans the newly added detailed activities.
  29. Contemporaneously incorporate all approved changes to the Work that occur during design or construction. These changes are to be identified by including the Supplemental Agreement or Change Order number in the activity description or other method approved by GDOT to identify the change, and must be identified and the scope described for each new activity in the narrative for the reporting period in which the Supplemental Agreement or Change Order was approved or executed.

## **2.2.5 Software Requirements**

The DB Team shall utilize the latest available version of Primavera P6 software for the development and maintenance of all Project Schedules. All schedule submittals will be provided to GDOT in electronic Primavera P6 file format (.XER or .XML) compatible with the program, revision number, and service pack used by GDOT. In addition to compliance with all schedule software settings and restrictions as prescribed throughout this Section 2.2, the DB Team shall coordinate with GDOT to ensure all Project-related Primavera P6 data is properly imported with each submittal. This includes which import configuration options will be utilized.

### **2.2.5.1 Software Practices and Restrictions**

Except as noted elsewhere in this Section 2.2, the DB Team shall ensure all Project Schedules comply with the following software practices and restrictions:

**Activity Constraints** – Each start milestone (“Milestone”) shown in Volume 1 Exhibit 9, will be constrained with a “start on-or-after” primary constraint date. Each finish milestone (“Deadline”), as defined in Volume 1 Exhibit 9, shall be clearly identified and represented in the Project Schedule using the following convention:

1. The applicable ending event shall be a finish milestone identified as “Completion Deadline \_\_\_\_\_”, constrained with a “Finish On” Primary Constraint date, (where the underlined space will identify the applicable Milestone Schedule Deadline).
2. Activity “Completion Deadline \_\_\_\_\_” shall have sole predecessor identified as a finish milestone named “Currently Forecasted Completion Deadline \_\_\_\_\_” (tied with a finish-finish relationship with zero lag value). Both activities shall be assigned to the same Calendar
3. Activity “Currently Forecasted Completion Deadline \_\_\_\_\_” shall have as predecessors all the activities that must be completed prior to the Milestone Schedule Deadline, as defined in Volume 1 Exhibit 9.

Date constraint(s), other than those required by the DB Documents, will not be allowed unless approved prior in writing by GDOT. The DB Team shall identify any constraints proposed and provide an explanation for the purpose of the constraint. Use of “As late as possible,” project level “Must finish by,” and “Mandatory” constraint types are not permitted.

**Logic, Relationships & Relationship Lags** - DB Team shall ensure the majority of activity relationship types are finish-to-start (FS) with no leads or lags for construction phase activities. Finish-to-finish (FF) or start-to-start (SS) relationship types may contain lags that are no greater than ½ of the predecessor’s duration. Use of a start-to-finish relationship type is not permitted. Relationship lags shall not be used when the creation of an activity will perform the same function (e.g., concrete cure time). The DB Team shall identify any lag proposed and provide an explanation for the purpose of the lag. Use of lags with a negative value shall not be allowed.

**Progress Data** - Scheduling data, including actual costs, actual start, and actual finish dates shall not be automatically updated by default mechanisms that may be included in the scheduling software system (including but not limited to update progress, apply actuals, etc.). Actual start and actual finish dates shall match the dates contained in the DB Team’s QA/QC documentation and Five Week Detail Schedules. Work activities shall be updated by actual Work progression. If used, labor and equipment hours associated with activities shall be derived from the DB Team’s contemporaneous Project diaries and daily reports.

**Calendars** - All calendars utilized on Project Schedules shall be Project-level calendars. The DB Team shall not use or reference global level calendars. Use of “Inherit holidays and exceptions from Global Calendar” option shall not be permitted.

Each calendar shall identify work days and non-work days and should include identifiable PI# in the description (i.e. “PI##### - 5-Day Work Week,”). Each calendar utilized should maintain the same hourly work/non-work times and same hours/day. DB Team shall ensure all calendars utilized maintain the same hours per time period as specified in software “Admin Settings” and ensure “Use assigned calendar to specify the number of work hours for each time period” is selected. Unless otherwise approved by GDOT, a standard working day shall consist of 8 work hours per day and be defined as 8:00AM to 5:00PM (with a 1 hour non-work lunch at 12:00PM-1:00PM). Each calendar (either 5-day work week, 6-day work week, 7-day work week, etc.), shall remain consistent with these start and finish times.

The DB Team shall not change an activity’s calendar assignment, modify a calendar’s work/non-work periods (both work days or work hours/day), add, or delete calendars used in the Project Baseline Schedule, or any monthly Progress Schedule, without prior agreement from GDOT.

#### **2.2.5.2 Software Settings**

Except as noted elsewhere in this Section 2.2, the DB Team shall ensure all schedules comply with the following software settings:

**Schedule Options** - DB Team shall ensure the following schedule options are selected:

At time of Project Baseline Schedule submittal, DB Team shall specify if lags are to be calculated on predecessor, successor, or 24-hour calendar; and shall remain consistent with such setting throughout the course of the Project.

**Project Settings and Defaults** - The DB Team shall apply the following project settings :

1. Each Project Schedule submittal shall be clearly identified; have a unique Project ID, and Project name prior to submission (prior to the DB Team starting the export process); and shall adhere to the following naming convention:

| Project Id  | Project Name        | XER or XML File Name                 |
|---|---------------------|--------------------------------------|
| <i>Project Id</i>   | <i>Project Name</i> | <i>XER or XML File Name</i>          |
| <b>For Preliminary Baseline Schedule, Project Baseline Schedule, and Revised Baseline Schedule Submittals</b> |                     |                                      |
| PI#_BLS01   | Project Name_BLS01  | PI#_Date Uploaded_Sch_BLS01_ddYYMMDD |

|  |  |   |
|--|--|---|
| PI#_BLS02  | Project Name_BLS02   | PI#_Date Uploaded_Sch_BLS02_ddYYMMDD    |
| PI#_BLS03  | Project Name_BLS03; etc.   | PI#_Date Uploaded_Sch_BLS03_ddYYMMDD    |
| <b>For Progress Schedule Submittals</b>  |  |   |
| PI#_UDP01  | Project Name_UDP01   | PI#_Date Uploaded_Sch_UDP01_ddYYMMDD    |
| PI#_UDP02  | Project Name_UDP02   | PI#_Date Uploaded_Sch_UDP02_ddYYMMDD    |
| PI#_UDP03  | Project Name_UDP03   | PI#_Date Uploaded_Sch_UDP03_ddYYMMDD    |
| PI#_UDP03r01   | Project Name_UDP03 (Resubmitted)<br><i>Note: shown for example purposes only</i> | PI#_Date Uploaded_Sch_UDP03r01_ddYYMMDD |
| <b>For Revised Project Baselines Submittal(s)</b>  |  |   |
| PI#_RBL01  | Project Name_RBL01   | PI#_Date Uploaded_Sch_RBL01_ddYYMMDD    |
| <b>For Project Recovery Schedule Submittal(s) (if applicable)</b>  |  |   |
| PI#_PRS01  | Project Name_PRS01   | PI#_Date Uploaded_Sch_PRS01_ddYYMMDD    |
| <b>For Project As-Built Schedule Submittal(s)</b>  |  |   |
| PI#_ABS  | Project Name_ABS   | PI#_Date Uploaded_Sch_ABS_ddYYMMDD      |
| <b>Where the following abbreviations and conventions represent:</b>  |  |   |
| PI# = Project Number<br>BLS = Baseline Submittal<br>UDP = Update Period<br>RBL = Revised Baseline Submittal<br>PRS = Project Recovery Schedule<br>ABS = As-Built Schedule<br>Sch = Schedule<br>ddYYMMDD = data date in 2-digit format (Year, Month, Day) |  |   |

- Each Progress Schedule (update submittal) must be related to the coinciding ordinal month progress period.
- Project status shall be “Active.”
- Project level “Must Finish By” shall be left blank.
- The data date for the Preliminary Baseline Schedule submittal shall be set to the authorization date to begin NTP 1 Work, as identified in writing by SRTA or GDOT.
- The data date for Project Schedule submittals, excepting the Preliminary Baseline Schedule, shall be set to the day immediately following close of the update period, so that if the period closes on the 31<sup>st</sup> at 11:59 p.m., the data date should be set to the 1<sup>st</sup> of the next month at 12:00 a.m.
- The character for separating code fields for the WBS tree shall be “.”
- The fiscal year begins on the 1st day of July.
- The baseline for earned value calculations shall be “Project baseline”
- Critical Activities shall be defined as “Longest Path”

**Activity Settings and Defaults** - DB Team shall ensure all schedule activities conform to the following:

- The duration type shall be “Fixed Duration & Units”; start and finish milestones shall be “Fixed Duration and Units/Time.”
- The percent complete type shall be “Physical.”
- Activity Type shall be set to “Task Dependent” except for Milestones and Level of Effort/Summary activities.

4. The default calendar shall be set to most common Project-specific production calendar. Calendar assignments may be changed at the activity level, as applicable.
5. Default price / unit for activities without resource or role price / units shall be "\$0.00/h."
6. "Activity percent complete based on activity steps" shall not be selected.
7. "Link Budget and At Completion for not started activities" shall be selected.
8. "Reset Remaining Duration and Units to Original" shall be selected.

**WBS Default Settings** – DB Team should ensure the status for all WBS levels with activities assigned is "Active" and the following Earned Value Settings are selected:

| Technique for computing performance percent complete  | Technique for computing Estimate to Complete (ETC)  |
|---|---|
| <input checked="" type="radio"/> Activity percent complete<br><input type="checkbox"/> Use resource curves / future period buckets<br><input type="radio"/> WBS Milestones percent complete<br><input type="radio"/> 0/100<br><input type="radio"/> 50/50<br><input type="radio"/> Custom percent complete <input type="text" value="6"/> | <input checked="" type="radio"/> ETC = remaining cost for activity<br>or<br>ETC = PF * (Budget at Completion - Earned Value), where:<br><input type="radio"/> PF = 1<br><input type="radio"/> PF = 1 / Cost Performance Index<br><input type="radio"/> PF = 1 / (Cost Performance Index * Schedule Performance Index)<br><input type="radio"/> PF = <input type="text" value="0.88"/> |

**Admin Settings** - The following settings shall be placed:

1. Industry to use for terminology and default calculation settings in the P6 Professional module shall be "Engineering and Construction."
2. Currency shall be "USD – Dollar."
3. Time Periods shall be defined as follows:
  - a. Hours/Day: 8.0,
  - b. Hours/Week: 40.0,
  - c. Hours/Month: 172.0, and
  - d. Hours/Year: 2000.0.
4. "Use assigned calendar to specify the number of work hours for each time period" shall be selected.
5. Earned Value Technique for computing performance percent complete shall be "Activity % Complete."
6. Technique for computing estimate to complete (ETC) shall be "ETC = Remaining Cost for activity."
7. When calculating earned value, use "Planned values with Current Dates" or "At Completion values with Current Dates" options. "Planned Values with Planned Dates" option is not permissible.

## 2.2.6 Scheduler Qualifications

The DB Team shall designate at least one scheduler, who will be full-time on the Project and responsible for the development, preparation, and management of all required Project Schedules. The designated scheduler(s) shall have at least five (5) years of experience developing, creating, managing, and reporting on schedules of similar size, type, and complexity to this Project and proficiency in the designated scheduling software system. The DB Team shall submit a resume outlining the qualifications of the proposed scheduler(s) to GDOT for review and approval within fourteen (14) days of NTP 1. Should the scheduler(s) leave the employment of the DB Team, leave the Project, or GDOT finds the DB Team's scheduler(s) performance to be poor or any proposed scheduler(s) to be lacking in qualifications or experience, the DB Team shall replace them with (an) equal or better replacement(s) meeting all original qualification requirements within fourteen (14) days of written notice from GDOT.

### **2.2.7 GDOT Review, Approval, and Acceptance**

GDOT will review the Preliminary Baseline Schedule, the Project Baseline Schedule, and Revised Baseline Schedule submittals within thirty (30) days of submission and a Recovery Schedule within fourteen (14) days of submission; and return them as approved, approved with comments (which must be addressed to GDOT's satisfaction in the following Progress Schedule), or rejected for resubmission within ten (10) days from the date of receipt by DB Team. DB Team shall repeat the submittal process until the Project Schedule is approved by GDOT.

GDOT's review and approval of the Preliminary Baseline Schedule, the Project Baseline Schedule, and Revised Baseline Schedule submittals is for conformance to the requirements of the DB Documents and Good Industry Practice and does not relieve DB Team of sole responsibility for meeting DB Document requirements and Completion Deadlines. Approval does not expressly or by implication warrant, acknowledge, or admit the reasonableness of the logic, durations, resourcing, or any other element. If DB Team fails to define any element of Work, activity, or logic and GDOT's review does not detect this omission or error, DB Team remains responsible for correcting the error or omission without qualification. Approval does not take precedence over any DB Document requirement unless such approval includes specific, written waiver of a DB Document requirement

GDOT will review Progress Schedule and Recovery Schedule submittals within fourteen (14) days of submission, and return them as approved, approved with comments (which must be addressed to GDOT's satisfaction in the following Progress Schedule), or rejected for resubmission within ten (10) days from the date of receipt by DB Team. DB Team shall repeat the submittal process until the Project Schedule is approved by GDOT.

GDOT's review and acceptance of Progress Schedules, Recovery Schedule(s), and the As-Built Schedule is for review for conformance to the requirements of the DB Documents and does not relieve DB Team of the sole responsibility for meeting all DB Document requirements and Completion Deadlines. Acceptance does not expressly or

by implication warrant, acknowledge, or admit agreement; the reasonableness of the logic, durations, resourcing, or any other element of the Progress or Recovery Schedule. If DB Team fails to define any element of Work, activity, or logic and GDOT's review does not detect this omission or error, DB Team remains solely responsible for correcting the error or omission, without qualification or recourse.

DB Team is solely responsible for planning and executing the Work and for providing sufficient administration, planning, design, materials, equipment, and labor to guarantee completion of the Project in accordance with the DB Documents and Completion Deadlines.

GDOT will retain final authority to approve, accept, reject, or accept as noted for every Project Schedule, as described in Article 6.3 of the DBA, this Volume 3, Section 2.2; Volume 3, Section 23, and the DB Documents. If rejected by GDOT, the DB Team shall address GDOT comments and revise and resubmit the Project Schedule until acceptance or approval, as applicable, by GDOT. GDOT's approval or acceptance of any Project Schedule shall not relieve the DB Team from its responsibilities for adjusting workforces, equipment, and Work schedules to ensure Completion of the Project within the time specified in Exhibit 9 to the DBA. Similarly, GDOT's approval or acceptance of any Project Schedule does not in any way relieve the DB Team from its responsibility to produce and utilize a complete, accurate, and appropriate schedule for managing its Work. GDOT's approval or acceptance only implies that the submittal appears to meet the requirements of this specification and appears to provide a valid Work plan for the Project, but in no-way constitutes GDOT's approval or acceptance of time impacts or other changes to the Work. If GDOT deems that any Project Schedule fails to provide the information required in this Section 2.2 or the DB Documents, GDOT may withhold a portion of or all progress payments until the proposed Project Schedule containing the required information has been submitted by the DB Team and approved or accepted by GDOT, as applicable. Unaccepted or rejected Project Schedules and associated data shall not be considered relevant or applicable for any purposes during or after completion of the Project and shall not be binding on GDOT.

### **2.2.8 Resource Loading**

For all construction activities, resources shall be incorporated into the Project Schedule in a manner that represents a reasonable plan, production rates, and resource constraints that can be met to complete the Work.

The DB Team shall provide a list of crews and crew types separate from the Project Schedule in the project narrative, and shall identify the composition of and production rate for each crew type. The crews shall be defined as a labor resource type and shall be assigned to appropriate activities. The resource-loading method the DB Team elects to use shall adhere with all scheduling requirements as set forth under this Section 2.2, including all specified software practices, restrictions, and settings. Additionally, the following requirements shall be met:

1. The commodity, labor, or equipment quantity that the activity value will be based on shall be indicated as a resource.
2. Labor-loading of activities may be based upon total number of workers or total number of crews to be used by the DB Team and subcontractors.
3. Major construction equipment to be used by the DB Team and subcontractors at all tiers in prosecuting Work shall be assigned to applicable activities.
4. The quantity shall represent the estimated effort in-place for the activity value.
5. A unique “Resource Breakdown Structure” (RBS) must be created, clearly identifying a Project Identification number and populated with resources assigned within the project hierarchy.
6. Standard Resource fields shall be populated with Project-related and appropriate information including:
  - (a) resource ID (prefix for each shall be project PI#),
  - (b) resource name,
  - (c) resource type,
  - (d) unit of measure,
  - (e) default units/ time,
  - (f) resource calendar,
  - (g) effective date (prior to or same as Project start date),
  - (h) max units/ time; and
  - (i) price/ unit.

In addition to the original resource-loading depicted in the Project Baseline Schedule, the DB Team may be required to adjust resource levels to meet all milestones on the Milestone Schedule (Exhibit 9). Additional adjustments may include Supplemental Agreements.

As part of the proposed Project Baseline Schedule and all subsequent schedule submittals, the DB Team shall also provide GDOT with the following exhibits:

1. **Resource Assignment Data** - shall be a tabular layout or report, organized by resource with summary band info displayed, and rolled-down to display all activities assigned. As applicable, required fields may include identification of each resource assigned, activity ID, activity name, duration, activity status, physical percent complete, budgeted, actual, remaining and at-completion units, unit price and unit of measure.
2. **Resource S-Curve Data** - shall be a product of the software creating the Project Schedule and shall be a tabulation of monthly incremental budgeted, actual, and remaining units on an early- and late-date basis.

### 2.2.9 Schedule of Values (SOV) and Cost-Loading

The Preliminary Baseline Schedule, Project Baseline Schedule, Revised Baseline Schedule(s), and Recovery Schedule(s) shall be cost-loaded to create the Project SOV (which may be the Preliminary SOV, Baseline SOV, Revised Baseline SOV, or Recovery Schedule, as further defined in this Section 2.2 and as appropriate for the context in which they are used). Progressed during each respective reporting period,

the Project SOV shall be the basis for periodic compensation due the DB Team throughout the performance of the Work.

The Project SOV shall be derived from and be generally consistent with the cost-loaded Proposal SOV and all cost-loaded schedule activities shall roll-up to the activities shown on Exhibit 2 to the Design-Build Agreement. \_\_\_\_\_

In developing the Project Baseline Schedule SOV, the DB Team shall apportion its Contract Sum across schedule activities that, in aggregate, represent all Work. The DB Team shall devise an account structure representing the major categories of the Work in consultation with GDOT and which is subject to GDOT approval. The DB Team shall allocate the total Contract Sum among these accounts. Each account will include one or more cost-loaded activities scheduled on the Project Schedule. Once approved, this devised account structure and allocated dollar values to each account via specific activities shall constitute the Project's "Schedule of Values". The Project Baseline Schedule and successor monthly Progress Schedules will form the basis of payment for the Project.

Each Progress Schedule submittal will be accompanied with an updated Project SOV. For each Progress Schedule, the DB Team and GDOT will agree upon the progress percent complete for Work in place related to each activity. The percent complete utilized for progress payments for a given activity shall reflect the activity's physical percent complete value. The agreed updates shall be submitted with and shall justify the DB Team's monthly Payment Requests. The Project SOV shall show for each schedule activity: SOV value, progress percent complete, which individually and in aggregate and the associated invoice amount.

The DB Team shall select a method and scheme compatible with the scheduling software to cost-load the CPM Schedule with the Schedule of Values. The DB Team's method must have the ability to, at the schedule activity level, track each cost-loaded activity value as a "budget" against periodic, total to date, and final Project earnings for that activity. The cost-loading structure will be reviewed by GDOT for approval at the time of the Preliminary Baseline Schedule, Project Baseline Schedule, or Revised Baseline submittals, as applicable and shall not be modified without the prior approval of GDOT. The DB Team shall devise a system for tracking, grouping and sorting cost-loaded activities as approved by GDOT. The DB Team shall allocate the total Contract Sum among activities adhering with the following:

1. Cost-loading shall be applied to task dependent, detailed administrative, design, and construction activities. Cost-loading level of effort or summary type activities in lieu of detailed design and construction activities shall not be permitted.
2. The cost for each activity shall accurately represent the value of the Work identified in the activity.
3. The cost-loaded activities shall not be front-end loaded. A linear and uniform distribution of cost over each activity's duration is required. To resolve disputes, the DB Team agrees to provide GDOT access to the DB Teams' escrow bid documents.

4. No single schedule activity may be assigned a value greater than \$100,000 or 1% of the total Contract Sum, whichever is less, without prior written approval by GDOT.
5. The sum of the costs of all activities shall equal the total Contract Sum.
6. The sum of the costs of a particular subset of activities assigned to a particular SOV account shall equal the total Contract Sum for that particular SOV account.
7. Once approved or accepted, no changes to any budgeted or distributed amount may be made without prior GDOT approval.

All payments to the DB Team under this DB Agreement will be represented by cost-loaded activities. Supplemental Agreements that include changes to the Contract Sum will be incorporated into the Project SOV.

As part of the proposed Preliminary Baseline Schedule, Project Baseline Schedule, Revised Baseline Schedule, Recovery Schedule, and Progress Schedule submittals, the DB Team shall provide GDOT with the following exhibits:

1. **Schedule of Values (SOV)** - shall be provided as tabular layout or report, organized by SOV accounts with summary band info displayed, and rolled-down to display all activities assigned cost-loading data under each SOV account. As applicable, required fields may include identification of particular SOV assigned, activity ID, activity name, duration, activity status, physical percent complete, budgeted and actual units, unit price and unit of measure (if applicable), budgeted and actual cost, remaining cost, and at-completion cost.
2. **Cumulative S-Curve Data** - shall be a product of the software creating the Project Schedule and shall be a tabulation of monthly incremental budgeted, actual, and remaining cost on an early- and late-date basis.

### **2.2.10 Maximum Payment Curve**

All Project SOVs are subject to the Maximum Payment Curve requirements herein; however, notwithstanding any other provision within the DB Documents, in no case shall the Project SOV exceed the Annual Cumulative Payment Caps set forth in Article 5.2, Table 5-1 of the Agreement, as modified by executed Supplemental Agreement(s). Except upon the execution of a Supplemental Agreement, GDOT or SRTA approval or acceptance of any Project Schedule or Project SOV, and Progress Schedule or Progress SOV, shall not supersede, increase, or modify the Annual Cumulative Payment Cap.

The Maximum Payment Curve may be modified from time to time i) when requested by the DB Team and approved by GDOT and SRTA in their sole discretion; ii) upon issuance of a unilateral change order by SRTA increasing the Maximum Payment Curve, and iii) to account for adjustments to the Contract Sum due to Supplemental Agreements/ Change Orders. Such modification cannot be based solely upon cost adjustments to the existing SOV payment activities.

#### **2.2.10.1 Establishing the Maximum Payment Curve**

The DB Team shall submit to GDOT and SRTA for review and approval, which approval is subject to GDOT's and SRTA's sole discretion, a Maximum Payment Curve derived from the approved Project SOV. The Maximum Payment Curve will be provided: i) as a graph showing a cumulative cash flow curve based on the early Project Schedule completion dates and as modified below to establish the proposed Maximum Payment Curve; and ii) as a Maximum Payment Curve Table with a row for each year and month from NTP 1 to Final Acceptance and width columns showing the month and year, the cap amount for each payment period, and the accumulative cap amount up to and through that period.

The Maximum Payment Curve Table shows the earliest date by which the aggregate amounts may become available to the DB Team, and which constitutes a cap on the aggregate amount of payments that may be made to DB Team at any specified time, but which may be revised from time-to-time as specified in Article 5.3 of the Design-Build Agreement.

Each entry in the Maximum Payment Curve Table need not exactly reflect the Project SOV but in no case can the Maximum Payment Curve exceed: i) any of the Annual Cumulative Payment Caps; and ii) 125% of the Project SOV for any reporting period, as reflected by the early completion of the Project Completion dates. The total of the accumulative cap column must equal the Contract Sum. Upon GDOT and SRTA approval, the Payment Cap Table will become a binding term and condition under the Agreement (Volume 1).

The Maximum Payment Curve must be submitted for approval with the Project SOV but no later than fourteen (14) days after the Project Baseline Schedule is approved by GDOT.

Notwithstanding any other provision in these DB documents, no payment for Work contemplated by the Project SOV will be made until the Maximum Payment Curve Table and the Project SOV have been approved by GDOT and SRTA.

#### ***2.2.10.2 Reporting Cumulative Progress***

The monthly narrative report will include a comparison of the actual accumulated expenditures against the accumulated expenditures shown on the approved Maximum Payment Curve Table through the then-current reporting period, and shall project the planned level of expenditures for the remaining Work against the funds available as shown in the Maximum Payment Curve Table and against the Annual Cumulative Payment Cap Schedule.

In addition, with each monthly narrative report, DB Team shall provide a graph showing the cumulative cash flow curve based on the early completion dates and compared against the approved Maximum Payment Curve.

#### ***2.2.10.3 Payment Under the Maximum Payment Curve***

On or about the fifth Business Day of each month following approval of the Project Schedule, Project SOV, and Maximum Payment Curve, and continuing through the last date of the Maximum Payment Curve Table (Final Acceptance), DB Team shall deliver to GDOT three (3) hard copies and one (1) electronic copy of a Payment Request in a form approved by GDOT and SRTA and meeting all requirements in the DB Documents. Each Payment Request shall be signed by DB Team's Authorized Representative.

#### ***2.2.10.4 Annual Reconciliation with the Annual Cumulative Payment Cap Amount***

Unless otherwise agreed to by the Parties, a revised Maximum Payment Curve shall be submitted for approval at the end of each GDOT fiscal year (which ends on June 30) to account for any remaining amounts under the Annual Cumulative Payment Cap Schedule set forth in Article 5.2.1, Table 5-1 that are then made available. If at any time during the progression of the Work: i) the DB Team's cumulative sum of the value of the estimated Work in progress, ii) the accumulated total progress Payment Requests received, or iii) the accumulated total progress payments projected are within 5% of the accumulative total expenditure permitted by the Maximum Payment Curve, the DB Team shall provide prompt notice to GDOT and SRTA, but not later than with submittal of the Project Update Schedule narrative report for that period, along with a plan showing how the DB team will remain under the Maximum Payment Curve while mitigating any potential delays to the Project, including slowing, resequencing, or stopping the Work.

No later than the earlier of: i) two months prior to each GDOT Fiscal Year end (June 30<sup>th</sup>) or ii) when the DB Team's projected cumulative progress payments sum of the value of the estimated Work in progress is projected to exceed the Cumulative Payment Cap Schedule for the next month, the Parties shall meet to review the DB Team's actual payments received and the projected cumulative sum of the value of the estimated Work to the end of the Fiscal Year against those established in the Maximum Payment Curve Table and the Annual Cumulative Payment Cap Schedule shown in Article 5.2.1, Table 5-1 to the Agreement. If the DB Team's projected cumulative progress payments sum of the value of the estimated Work exceeds the Cumulative Annual Payment Cap Schedule, the DB Team shall provide a plan, subject to GDOT and SRTA approval, for slowing, resequencing, or stopping the Work until the next Fiscal Year, when additional Annual Funds become available. Such plan will address minimizing impacts to traffic and upon approval shall be performed by the DB Team.

If the DB Team does not meet any of the requirements of this Section 2.2.11 Maximum Payment Curve or if GDOT deems the DB Team's plan under this Section 2.2.11.4 unreasonable or unworkable, then GDOT may, in its sole discretion, stop the Work until such time that the Annual Funds become available. In such case, any additional Work or disruptions caused by or related to slowing, resequencing, or stopping the Work and minimizing impacts to traffic, whether directed by GDOT, or required by this Section 2.2.11.4 will not constitute either a Relief Event or Compensation Event.

## **2.2.11 Schedule Submittal Requirements**

### **2.2.11.1 Project Schedule Requirements**

Within fourteen (14) days from NTP 1, the DB Team shall schedule and coordinate a Schedule Kick-off Meeting with GDOT to discuss the schedule structure, methodology, expectations, and how the requirements will be met. A preliminary WBS shall be submitted at the Schedule Kick-off meeting for subsequent GDOT review and approval. The Preliminary Baseline Schedule shall be submitted no later than thirty (30) days after NTP 1. GDOT will provide written approval or comments to the DB Team to revise and resubmit the Preliminary Baseline Schedule. Within seven (7) days of being directed by GDOT to revise and resubmit, the DB Team shall revise and resubmit the Preliminary Baseline Schedule. This procedure will be repeated as necessary until GDOT approval.

Not later than thirty (30) days prior to the anticipated NTP 3 date, the DB Team shall schedule and coordinate a Schedule Kick-off Meeting with GDOT to discuss the complete Project Baseline Schedule structure, methodology, expectations, and how the requirements will be met. A preliminary, complete WBS shall be submitted no later than at the Schedule Kick-off meeting for GDOT review and approval. The Project Baseline Schedule shall be submitted no later than one hundred and twenty (120) days after NTP 1. GDOT will provide written approval or comments to the DB Team to revise and resubmit the Project Baseline Schedule. Within seven (7) days of being directed by GDOT to revise and resubmit, the DB Team shall revise and resubmit the Project Baseline Schedule. This procedure will be repeated as necessary until GDOT approval. (This review and approval process and durations also applies to all Revised Baseline schedules.)

The approved final submittal of the schedule shall be called the “Project Baseline Schedule.” Once approved, the Project Baseline Schedule shall not be modified in any way.

The Project Baseline Schedule submittal(s) shall include:

1. Electronic Primavera P6 file format (.XER or .XML) of the schedule submittal
2. A schedule narrative meeting the requirements as described herein
3. A critical path schedule plot (in .pdf format)
4. A full schedule plot (in .pdf format)
6. SOV Layout
7. Cumulative S-Curve Data (early and late date basis) ensuring the Project Schedule is within the limits of the Maximum Payment Curve

### **2.2.11.2 Progress Schedule Requirements**

The DB Team shall prepare and submit for review and acceptance by GDOT monthly Project Schedule updates (Progress Schedules) that meet the requirements as described in this Section 2.2. Progress Schedules do not constitute revisions or

amendments to the Preliminary Baseline Schedule, Project Baseline Schedule, or Revised Baseline schedule. The DB Team shall update monthly the prior accepted Progress Schedule to reflect the current status of the Project, and any accepted Compensation or Relief Events by GDOT.

DB Team shall submit Progress Schedules with actual start and finish dates for completed activities, and physical percent complete and remaining durations for activities in progress. The data date for each Progress Schedule shall be the day after the progress period for payments closes.

DB Team shall submit the Progress Schedules with the monthly narrative report. A Progress Schedule (whether or not such update has been approved by GDOT) does not constitute a revision to the Project Schedule. Refer to Section 2.2 for the process by which revisions to the Project Schedule shall be submitted and approved by GDOT.

**Acceptable Schedule Changes** - acceptable scheduling changes in a Progress Schedule include: logic adjustments to address out of sequence Work, splitting of activities to address significant periods of inactivity for payment purposes and changes to cost loading of activities below the WBS level of Payment Activities.

DB Team shall not revise descriptions to represent a different scope than originally intended. No changes in activity durations, activity cost loading at the WBS level of Payment Activities or higher, calendar assignments, logic ties, or constraints will be allowed without GDOT's written concurrence. These are considered revisions to the Project Baseline Schedule. An activity identification number can only be used once. DB Team shall not delete an activity and then create a new activity at a later date utilizing the same activity identification number.

**Acceptable Cost Loading Changes in an update (Progress Schedule)** - the splitting of Payment Activities for payment purposes will be allowed provided that justification is submitted, reviewed, and approved by GDOT. DB Team shall ensure the allocated dollar values that are split match the Contract Sum (as may be modified by a Supplemental Agreement or Change Order) at all times.

Progress Schedules shall be submitted on or before the seventh day of the month after acceptance of the Project Baseline Schedule and shall be developed in accordance with the applicable provisions of the DB Documents. GDOT will review the monthly Progress Schedule(s) for consistency with the DB Team's WBS, the current accepted Project Baseline Schedule and the previous month's accepted update for conformance with the DB Documents. Following GDOT's notice of review findings, the DB Team is responsible to schedule and coordinate a meeting with GDOT to discuss the Progress Schedule. At a minimum, the following topics will be discussed: DB Team's compliance with contractual schedule requirements, delays, proposed and approved contract quantity increases and decreases, proposed and approved extra work, actual starts, durations and finishes, and actual progress to date.

Within 14 days of being directed by GDOT to revise and resubmit, the DB Team shall revise the Progress Schedule and re-submit the Progress Schedule. GDOT may withhold payment until the Progress Schedule is accepted.

The Progress Schedule submittal(s) shall include the following:

1. Electronic Primavera P6 file format (.XER or .XML) of the schedule submittal
2. A schedule narrative meeting the requirements as described herein.
3. A critical path schedule plot (in .pdf format)
4. A full schedule plot (in .pdf format)
5. A five (5) week look ahead schedule for the activities to be completed between the schedule submittal and the following month's schedule update (in .pdf format)
6. A detailed variance report of the previous months five (5) week look ahead schedule.
7. A computer-generated log report listing all changes made between the current submitted schedule and the latest approved predecessor schedule as described herein
8. SOV Layout
9. Cumulative S-Curve Data (early and late date basis) including current progress

#### **2.2.11.3 Revised Project Baseline Schedule**

The DB Team may be required to prepare and submit for review and acceptance to GDOT a Revised Project Baseline that meets the requirements as described in Section 2.2. At any point during the Project, GDOT reserves the right to direct the DB Team develop and submit a Revised Project Baseline, at no additional cost to GDOT, that represents a reasonable plan to complete the work if any of the following occur:

1. The Schedule forecasts a finish date for the Project or any other contractual milestone that is more than 30 days later than contractually required
2. The actual cumulative Job-to-Date Work-in-Place falls below 95% of the accepted Baseline Schedule Cumulative S-Curve (Late Date Basis)
3. Overall approach to work, sequence(s), or timing are fundamentally changed
4. Contractual changes (accepted Relief Events or Compensation Events)
5. Field condition changes (means, methods, crew planning and staffing, and resource constraints, etc.)
6. The current plan, as communicated by the Schedule, is deemed an insufficient or unreasonable plan by GDOT

The Revised Baseline Schedule shall be submitted within fourteen (14) days of written notice from GDOT. GDOT will review the Revised Project Baseline and provide written approval or direction for the DB Team to revise and resubmit the Revised Project Baseline. Following GDOT's review comments, the DB Team shall schedule and coordinate a meeting with GDOT to discuss the Revised Baseline Schedule. At a minimum, the following topics will be discussed: actual progress to date, remaining work to be completed, and nature and justification of changes related overall approach to the

work, specific means, methods, crew planning and staffing, and resource constraints. Within fourteen (14) days of being directed by GDOT to revise and resubmit, the DB Team shall revise the Revised Project Baseline and re-submit the Revised Project Baseline. Once a Revised Project Baseline Schedule is approved by GDOT, it shall be used as the basis for subsequent Progress Schedule(s).

The Revised Project Baseline Schedule submittal(s) shall include:

1. Electronic Primavera P6 file format (.XER or .XML).
2. A schedule narrative meeting the DB Documents requirements.
3. A critical path schedule plot (in .pdf format)
4. A full schedule plot (in .pdf format)
5. A computer-generated log report listing all changes made between the current submitted Project Schedule and the latest accepted predecessor Project Schedule.
6. An SOV layout
7. Cumulative S-Curve Data (early and late date basis), including current progress.

#### **2.2.11.4 Recovery Schedule**

At any point during the Project, GDOT reserves the right to request the DB Team develop and submit a Project Recovery Schedule that meets the requirements as described throughout Section 2.2 and that represents a reasonable plan to complete the work when any of the following occur:

1. The schedule forecasts a finish date for the Project or any other contractual milestone that is more than 30 calendar days later than contractually required.
2. On cost-loaded schedules, the actual cumulative Job-to-Date Work-in-Place falls either below 95% of the accepted Baseline Schedule Cumulative S-Curve (late date basis) or exceeds the early completion pay curve by greater than 5%.
3. There have been cumulative or substantial changes to the planned or observed field condition changes (means and methods, crew planning and staffing, resource constraints, etc.).
4. The current plan, as communicated by the schedule, is deemed to be an insufficient or unreasonable plan by GDOT.

The Recovery Schedule must achieve all remaining Completion Deadlines, including Interim Milestones, Substantial Completion, and Final Acceptance. This effort may include applying additional resources, working longer or additional shifts, or other measures. The Recovery Schedule shall clearly communicate the DB Team's overall approach to the remaining work, as well as specific means, methods, crew planning and staffing. This includes logic ties that will dictate the planned flow of work on an early date basis, as well as sufficient logic to ensure the late date basis represents a reasonable plan, production rates, and resource constraints that can be met.

The Project Recovery Schedule shall be submitted within fourteen (14) days of written notice from GDOT. GDOT will review the Recovery Schedule and provide written

acceptance or direction for the DB Team to revise and resubmit. This process will be repeated as necessary until the Recovery Schedule has been accepted by GDOT. Once accepted, the Project Recovery Schedule shall be used as the basis for subsequent Project Schedule Updates (Progress Schedules).

The Project Recovery Schedule submittal(s) shall include the following:

1. Electronic Primavera P6 file of the schedule submittal
2. Schedule Narrative
3. Critical Path Schedule Exhibit
4. Full Schedule Exhibit
5. Schedule of Values Exhibit
6. Cumulative S-Curve Data (early and late date basis)
7. S-Curve Data compared against the Maximum Payment Curve

#### **2.2.11.5 As-Built Schedule**

A Project As-Built Schedule shall be submitted within thirty (30) days following Substantial Completion of the Project. All activities shall have accurate start and completion dates (and, where cost-loaded, all associated Contract Sum values paid completely). All dates shall be consistent with dates contained in the DB Team's QA/QC documentation. The As-Built Schedule shall incorporate all Supplemental Agreements and Change Orders where and when they occurred on the Project, with logic to identify what activity(ies) preceded them and which activity(ies) they influenced. Once accepted, the As-Built Schedule will serve as the final update of the Project Schedule.

The Project As-Built Schedule submittal shall include:

1. An electronic, Primavera P6 file format (.XER or .XML), of the schedule submittal.
2. A full schedule plot (in .pdf format).
3. Final SOV layout.

#### **2.2.11.6 Requests for Time Extension**

The DB Team shall be responsible for submitting a written request for all extensions of Contract Time in accordance with the DB Documents. Requests that are not submitted in writing, do not include the required documentation and justification, or are not submitted within the timeframes required by the Agreement will not be considered.

The DB Team shall include in the documentation written justification for the extension of time, supporting evidence, and specific references to the then-current and accepted Progress Schedule at the time the qualifying event occurred.

The DB Team shall also include a calendar time-scaled CPM network schedule (FRAGNET) analysis and supporting reports depicting the time impact basis of the request with the affected Project areas prominently highlighted. Use only the most-

current and accepted Progress Schedule at the time the qualifying event occurred when determining time extension request.

If GDOT finds that the DB Team is entitled to an extension of time of any Completion Deadline under the Agreement, GDOT's determination of the total number of days' extension will be based upon the analysis of the current Progress Schedule and upon data relevant to the extension. Extensions of time for performance under all of the DB Agreement will be granted only to the extent that equitable time adjustments for the activity or activities affected exceed the total float along the path(s) involved on the most-recent and accepted Progress Schedule.

#### **2.2.11.7 Narrative Requirements**

All Project Schedules shall include a separate narrative report, submitted as one electronic text, searchable .PDF file or MS Word file. The narrative report shall describe the Work completed in the last reporting period, a detailed description of the Work to be completed in the next three (months), and any anticipated or actual issues with achieving the scheduled as-planned activity dates for the Work. The narrative shall be updated with each subsequent Project Schedule submission and pertain to the Work performed during that reporting period and all remaining Work.

For the Preliminary Baseline Schedule and Project Baseline Schedule submittals, a schedule basis shall be developed that will include the following separated into sections:

1. The original contract completion date presented as actual calendar date and as a workday number, if applicable
2. The present computed completion date presented as an actual calendar date and as a workday number, if applicable
3. The DB Team's proposed methods of operation for designing and constructing the major portions of the Work required by the DB Documents.
4. An explanation of the DB Team's plan to complete the project, including where the work will begin and how the work and crews will progress through the project.
5. Description of the work to be completed each season for multi-year projects.
6. A description of the critical path.
7. A narrative description of any near-critical path (any path with less than 30 days of float).
8. A statement describing the status of any required permits.
9. An explanation of the use and application of the workdays per week, number of shifts per day, number of hours per shift, holidays observed and how the schedule accommodates anticipated weather days for each month. Submit a list of the calendars used and a definition of their type.
10. An explanation of the use of any allowed constraints, lags, and non-standard logic ties (SS, FF, and non-zero lags), including the reason and purpose for each.

For Progress Schedules, the narrative shall include the following:

1. The original and current contract completion date presented as actual calendar date and as a workday number, if applicable.
2. The present computed completion date presented as an actual calendar date and as a workday number, if applicable. The DB Team shall also provide:
  - (a) An explanation if any Completion Deadlines are projected to occur after the dates set out in the DB Documents and how they will be recovered.
  - (b) A description of the status of the scheduled Completion Date, focusing on any changes since the previous submission, including an explanation for any scheduled Completion Date that is projected to occur after the associated Completion Date.
3. The number of days adjusted to the Contract Time by approved Supplemental Agreement or Change Order (if any, if none, so state).
4. A list of activities added, including their descriptions and reasons why (if any, if none, so state).
5. A list of any “Scope Deleted” activities, including their descriptions and reasons why (in any, if none, state so).
6. A list of logic changes, reasons for the changes, and expected impact of the changes (if any, if none, state so).
7. A list of duration changes, the reasons for the changes, and expected impact of the changes (if any; if none state so).
8. A narrative description of any changes to the critical path(s).
9. A narrative description of any changes to a near-critical path (any path with less than 30 days of float).
10. A description of the work performed since the last approved or accepted (as applicable) Project Schedule. If the work performed does not match the work scheduled to be performed, the DB Team shall include a detailed description of why there is a discrepancy between the activities that should have been completed or progressed as indicated in the previous schedule submittal.
11. A description of unusual labor, shift, equipment or material conditions or restrictions encountered.
12. A description of any problems encountered or anticipated since the last Project Schedule. A statement that identifies any current and anticipated delays (identification does not constitute nor satisfy the notice requirements of the DBA nor Section 15.13 of the Standard Specifications and shall not be deemed formal nor actual notice). The statement should include identification of the delayed activity, the type of delay, the cause of the delay, the effect of the actual and projected delay to other activities and Completion Milestones and identification of actions required to mitigate the delay.
13. Discussion of schedule recovery techniques (if any) incorporated into the current schedule including specific measures and their anticipated or calculated impact.

In addition to the narrative requirements for Progress Schedules, for Revised Baseline Schedule and Recovery Schedule submittal(s), the narrative report shall include the

following separated into sections with justification for the changes, including, at the minimum, the following:

1. Changes to activity original durations,
2. Changes to activity relationships and/or schedule logic,
3. Identification of activities that have been added, deleted, or modified,
4. Changes to the Project Baseline Schedule critical path, and /or
5. Changes or delay in any contractual completion date since the last Project Baseline Schedule submittal.
6. Changes to the overall sequencing and/or approach to completing the project and the remaining work.
7. Changes to the work crews (number and/or size of each crew), shifts, hours worked, days worked, or major equipment changes.

#### **2.2.11.8 Exhibit Requirements**

The DB Team shall maintain and provide a computer-generated log report listing all changes made between every submitted Project Schedule and its last submitted predecessor schedule using the P6 Visualizer Schedule Comparison tool provided in the Primavera Project Management software bundle (i.e. Claim Digger) or equivalent as approved by GDOT. The DB Team shall submit this log with each Project Schedule submittal.

All Project Schedules and accompanying schedules, reports, and supporting data shall also be submitted to GDOT in electronic PDF file format as further described below.

Each schedule submitted to GDOT shall display the following items on each page:

1. Activity ID
2. Activity Description (or Activity Name)
3. Original Duration
4. Remaining Duration (for Updates only)
5. Start
6. Finish
7. Total Float
8. Physical Percent Complete
9. Activity Calendar
10. Cost (Budget / SOV & Actual / Invoice Value)
11. Legend
  - a. contract number
  - b. GDOT District(s)
  - c. DB Team name
  - d. Project location
  - e. Original Contract Time and all Milestone Completion dates
  - f. Revised Contract Time and Milestone Completion dates (if any)
  - g. Data date

Each schedule plot (full schedule, critical path, look-ahead, etc.) shall be submitted in electronic text searchable PDF file and formatted as follows:

1. Activities in early start sort within logical grouping such as WBS
2. Minimum font size 8-pt at 85 percent normal, and
3. Distinctive pattern and/or colored bars for critical path, completed Work, remaining (non-critical) Work, level of effort and expected finish date activities;
4. Color coding must remain in effect.
5. Each sheet or page of each submittal shall be identified with the DB Team's name, state project number, project name, date prepared, revision dates, and sheet or page number.
6. If the submittals are not prepared by the DB Team's own staff, the company name of the preparer shall be shown on each sheet or page.

At the request of GDOT, but not more often than once a month unless in the case of a Revised Baseline Schedule or Recovery Schedule (in which case twice that month), the DB Team may be required to submit one Gantt Chart printed on large-format media suitable for display in the Project conference room.

#### **2.2.11.9 Linear Schedule**

GDOT shall request Project Schedules be presented in linear format in addition to CPM format. The linear schedule shall be created in a format compatible with the latest available version of TILOS software or equivalent. Additionally, the linear schedule shall:

1. Be generated from the corresponding CPM schedule submittal provided in Primavera P6 format
2. Represent all construction and field activities only
3. Represent the work in sufficient detail in accordance with Section 2.2.1.2 Item 7.

As part of the proposed Project Baseline Schedule and all subsequent Project Schedule submittals, the DB Team shall also provide GDOT with the electronic file used to generate the linear schedule and in an accompanying legible, large-scale (11" x 17" or greater) PDF format.

#### **2.2.11.10 Five-Week Detail Schedules**

A Five-Week Detail Schedule shall be submitted to GDOT on a weekly basis. The Five-Week Detail Schedule is a computer-generated bar chart that spans a forward-looking, rolling period of at least 35 days.

1. The Five-Week Detail Schedule shall be based on the current Progress Schedule and provide a greater breakdown of the schedule activities for the purpose of coordination of the Work, oversight planning, verification of Work completed, and materials inspection and testing. Any deviations from the then-current Project Schedule must be clearly noted and explained; and
2. The Five-Week Detail Schedule shall reference the Project Baseline Schedule and Progress Schedule activity identification numbers and define subsequent

specific daily operations for all Work activities scheduled to be performed during the five-week period.

Each Five-Week Detail Schedule exhibit shall be:

1. Filtered by:
  - (a) In progress activities, or
  - (b) Remaining early start “is less than or equal to” the data date plus five weeks, or
  - (c) Actual start “is greater than or equals” the data date less one month, or
  - (d) Actual finish “is greater than or equals” the data date less one month
2. Sorted by start, then finish, then total float
3. Displayed in the following columns:
  - (a) Activity ID
  - (b) Activity name
  - (c) Original duration
  - (d) Remaining duration
  - (e) Physical percent complete
  - (f) Start
  - (g) Finish
  - (h) Total float

Upon prior approval by GDOT, Five-Week Detail schedules may be prepared using a different tool. The DB Team shall submit these short-term look-ahead schedules to GDOT and ensure they align accurately with the then-current overall Project Schedule.

## **2.2.12 Progress, Payment Requests, and Payment**

### **2.2.12.1 General**

For purposes of processing and reviewing all Payment Requests for this Agreement, GDOT shall serve as the representative and payment approval agent for SRTA. All Payment Requests and deliverables in connection therewith shall be submitted to GDOT, with copies to SRTA, and GDOT shall provide approvals on behalf of SRTA with respect to all such Payment Requests, and to the extent appropriated pursuant to the Joint Resolution, SRTA shall issue all payments on account of the Work. References herein to SRTA’s review and approval, shall mean review and approval by GDOT as payment review and approval agent for SRTA.

These payment provisions are subject to GDOT Standard Specification Section 109.03 to the extent that they do not contradict the requirements of this Section 2.2.

No payment will be made until the SOV is approved by SRTA except that SRTA shall pay Termination Compensation in accordance with the Agreement and shall pay the Payment Request Amount set forth in any approved Payment Request on the date anticipated for such payment when it was approved by SRTA.

The DB Team shall submit an Preliminary SOV for approval with or soon after approval of the Preliminary Baseline Schedule, and a Baseline SOV upon approval of the Baseline Schedule according to the following:

1. For the Preliminary Baseline Schedule, provide detailed costs for those activities authorized by NTP 1 and NTP 2.
2. For the Baseline Schedule, provide detailed costs for those activities authorized by the Design-Build Agreement.

The DB Team shall update and revise the Project SOV during the progress of the Work when a Revised Baseline Schedule is submitted, as and when requested by SRTA, or to reflect all Contract Sum adjustments necessitated by Supplemental Agreement(s).

GDOT may, at its sole discretion, require a Revised Baseline Schedule or a Recovery Schedule when the Project SOV is revised.

In no event shall DB Team include in any Payment Request amount any request for payment on account of Work performed by any Contractor that shall not be remitted to such parties in accordance with the terms of the DB Documents and applicable Law. In no event shall either DB Team or any Contractor or Subcontractor withhold or impose retainage on any Subcontractor or Supplier, or any downstream sub-subcontractors or suppliers of any tier. DB Team shall provide SRTA with details regarding the withholding or deduction of any payments to Contractors or Subcontractors, including specificity as to amounts and the basis for such withholding or deductions and if any such Contractors or Subcontractors are included within the DB Team's DBE Performance Plan.

#### **2.2.12.2 Payment Activities**

The Project SOV provides is an itemized list of Payment Activities that establishes the value or cost of each detailed part of the Work and for which the for which the DB Team desires to be paid. An Preliminary SOV shall be derived from the cost-loaded, approved Preliminary Baseline Schedule, and a complete Baseline SOV shall be derived from the cost-loaded, approved Baseline Schedule. The DB Team shall allocate the Contract Sum in the Project SOV generally consistent with the Proposal SOV. GDOT may verify the amounts by review of the Escrowed Bid Documents.

The following pertains to presentation of the SOV:

- The Payment Activities shall be organized and grouped according to the SOV.
- The SOV shall contain for each Payment Activity, the activity identification number, the activity description, the quantity, the applicable unit and percentage of Work complete.
- For design work, the SOV shall be based on design packages and stages.
- For administrative Work, the SOV shall have on-going Payment Activities accurately apportioned for each month in which Work occurs.

- Payments shall be made for Payment Activities, but which shall not be fully paid (100 % of the budgeted amount) until that portion of the Work is completed and all applicable required documentation is received and substantiated by GDOT. For on-going administrative activities, payment shall be made for the amount apportioned for the period payment is being requested.
- The amount payable to the DB Team for insurance and bond premiums will be their actual cost, paid upon proof of payment by the DB Team. Where a Payment Activity requires submittal of a bond, the Payment Activity is complete when the bond has been provided in the amount and under the terms required in the Agreement.
- GDOT will not pay for direct costs of equipment used to construct the Project. The DB Team shall allocate costs for equipment, whether new, used, or rented, as part of the activities with which the equipment is associated.

#### ***2.2.12.3 Payment for Final Completion Activities***

The SOV shall include Final Completion Activities sufficient to cover all efforts necessary to fulfill all DB Document requirements and successfully complete the Work for the following activities:

1. As-Built Submittal, which shall be equal to no less than .5% of the Contract Sum.
2. Completion of punch list items, which shall be equal to no less than 1% of the Contract Sum.
3. Final Close-out, which shall be equal to no less than 1% of the Contract Sum.
4. Demobilization, which shall be equal to no less than 1% of the Contract Sum.

#### ***2.2.12.4 Reporting Progress***

The DB Team shall include the following in the monthly narrative report:

1. Project Schedule Update
2. Totals of materials incorporated into the Project from execution through the reporting period:
  - a. Fill incorporated into the Project, in cubic yards
  - b. Concrete paving placed, in square yards
  - c. Lane miles completed
  - d. Length of pipe installed (of any size diameter)
  - e. Number of craft and total workers employed to work directly on the Project (including construction and professional services subcontractors)
3. Milestones achieved during the period
4. Summary of Project accidents (frequency and severity) and corrective actions taken
5. Progress photographs to show major activity and improvements, including those made in the last reporting period.
6. The total monthly labor hours for craft labor and non-construction personnel

by classification of management, engineering, and other technical personnel used on the Project

#### **2.2.12.5 Payment Request**

DB Team shall submit a draft Payment Request to GDOT, as payment review and approval agent for SRTA and with a copy to SRTA, by the fifth (5) day of each month containing the amount asserted to be payable for each Payment Activity and amounts due under approved Supplemental Agreements. DB Team shall not submit the first draft Payment Request prior to approval of the Preliminary SOV.

Requests for progress payment shall be submitted both electronically and in hardcopy format using forms provided or approved prior by GDOT. Include supporting documentation for the amount claimed payable when requested by GDOT.

The DB Team may present variations to these formats for GDOT and SRTA approval at least fourteen (14) days prior to the submittal of the first Payment Request. Once GDOT and SRTA have approved the formats, the formats shall not change unless approved by SRTA prior to their submittal. DB Team shall obtain GDOT and SRTA's approval of the requirements for the supporting documents that are to be included with the Payment Request within fourteen (14) days after the issuance of NTP1.

Upon receipt of a Payment Request, GDOT will review the submitted Payment Request and within seven (7) days provide comments to the DB Team that lists any discrepancies and other amounts intended to be deducted.

#### **2.2.12.6 Payment Request Review Meeting**

DB Team shall schedule and hold Payment Request review and progress status meeting(s) (each, a "Payment Request Review Meeting") with GDOT within seven (7) days after it submits the draft Payment Request. The Payment Request review and progress status meeting is intended to result in GDOT's approval of the relevant draft Payment Request or the changes necessary to the draft Payment Request to allow a final Payment Request to be issued by DB Team pursuant to Section 2.2.12.7 below. As such, the meeting shall address and finalize the following:

1. Actual Payment Activity start dates, finish dates and forecast dates
2. Total Project Payments earned based on the SOV for the month and for the Project to date.
3. Incorporation of and summary list of all approved Supplemental Agreements.
4. Critical Path(s) and analysis of potential performance areas.
5. Written summary of actions that are either in consideration or are being taken to minimize areas of potential impact or concerns.

#### **2.2.12.7 Approval of Payment Requests**

Within seven (7) days after each Payment Request Review Meeting, DB Team shall submit to SRTA, the final Payment Request based on the approved draft Payment Request. No Payment Request will be reviewed or processed until SRTA receives a complete Payment Request in compliance with these requirements. In the event that the final Payment Request submitted by DB Team is consistent with the form discussed, including the changes agreed, as part of the Payment Request Review Meeting, GDOT shall confirm its approval of the Payment Request within five (5) days of receipt from DB Team.

The DB Team shall submit a revised Payment Request to address any outstanding issues identified by GDOT. If the DB Team includes items for payment that remain unresolved, GDOT will either (i) notify the DB Team that unresolved items in the Payment Request remain, and request a resubmittal of a revised Payment Request, or (ii) deduct those amounts GDOT asserts are not eligible for payment, and process the Payment Request. In such case, GDOT shall notify the DB Team of any such deductions.

#### **2.2.12.8 Certification for Progress Payment**

All Payment Requests, whether as a Progress Payment or Final Payment, shall be certified by the DB Team's Project Manager using the "DB Team Certification for Payment" form (Attachment 2-2 to this Volume 3). No Payment Request will be processed without such certification.

#### **2.2.12.9 Documents Required to be Provided with the Payment Request**

The following documents shall be submitted with each Payment Request application. No Payment Request will be processed without such documents properly completed, signed, and dated:

1. Form of Payment Request (Attachment 2-1)
2. DB Team Certification for Payment (Attachment 2-2)
3. Project SOV derived from the cost-loaded Project Schedule listing all progressed Payment Activities for which payment is being requested,
4. Conditional lien releases from each first-tier Subcontractor and Subcontractors of any tier with a contract value greater than \$500,000 on a form provided or approved by SRTA and GDOT
5. The monthly narrative report as defined in Section 2.2.
6. All required insurance certificates, Payment Limitations, and Partial Suspension of Payment

#### **2.2.12.10 Limitations on Progress Payments**

GDOT will not pay for Work unless the following conditions are met with respect to such Work:

1. Released for Construction Documents are on Site for the Work being performed;
2. Released for Construction Documents have been checked and reviewed, and design documentation has been maintained, in accordance with the Contract Documents; and
3. Nonconforming Work Items are corrected and/or resolved to the satisfaction of GDOT

On any Payment Request, GDOT may suspend or deduct amounts otherwise due to DB Team for that period's apportionment for any continuing activity for any of the items identified in Exhibit 18 of the Agreement.

No payment will be made for design or construction Work necessary to correct Nonconforming Work.

If the DB Team fails to completely prosecute Work of a Payment Activity, GDOT may deduct that Payment Activity amount from the next successive month for the corresponding Payment Activity.

The DB Team is entitled to payment at the rate of completion of the Payment Activities except as restricted by the Annual Cumulative Payment Cap Schedule set forth in Article 5.2 of the Agreement and Table 5-1, and the Maximum Payment Curve as set forth in Article 5.3 of the Agreement and this Section 2.2. of Volume 3.

#### ***2.2.12.11 Price Reductions for Nonconforming Work***

Work deviations from the specification, if accepted by GDOT, will result in reductions of the Contract Sum as specified below.

Unit prices for materials are not utilized in the payment structure of this Contract. However, unit prices for reductions are required to utilize the pay factors, daily deductions, and rejection values identified in the GDOT 2013 Standard Specifications relating to price reductions. Unit prices for reductions listed shall be applied as unit prices, daily deductions, or rejection values as listed. Reductions per unit of Nonconforming Work allowed to remain in place by GDOT which are not covered by GDOT Standard Specifications shall be determined by GDOT. The DB Team shall be provided the opportunity to accept the reduction or remove and replace the Nonconforming Work. Girder defects will be assessed for price reductions based on long term durability and maintenance concerns.

#### ***2.2.12.12 Other Deductions***

GDOT may deduct from any amounts otherwise owing to DB Team, including each monthly progress payment and the final payment, the following:

- A. Any anticipated or accrued losses, liability, Liquidated Damages, fees, or

other damages for which DB Team is responsible hereunder.

1. The estimated or actual cost, as determined by GDOT, of remedying any Nonconforming Work or otherwise remedying any breach of contract by the DB Team.
2. The amount of any outstanding claim relating to the Work.
3. The estimated amount, as determined by GDOT, or the amount identified in the Project SOV for Work that the DB Team is obligated to perform under the Contract that the DB Team has failed to perform, whichever is greater.
4. Any other sums which GDOT is entitled to recover from the DB Team under the terms of the Contract.
5. With regard to final payment, in addition to the above, the amount GDOT deems advisable to retain to cover any existing or threatened Disputes, Claims, Liens and stop notices relating to the Project, or the cost of any uncompleted Work (including uncompleted Warranty Work).

GDOT's failure to deduct from a progress payment or final payment any amount that GDOT is entitled to recover from the DB Team under the Contract shall not constitute a waiver of GDOT's right to such amounts.

#### ***2.2.12.13 Processing and Payment***

Once GDOT reviews and Approves the Payment Request, GDOT will sign and date and return a copy of the Payment Request cover sheet with any corrections noted and proceed with processing the Payment Request. From the date signed, GDOT will make payment on Approved amounts within 10 Working Days.

#### ***2.2.12.14 Prompt Payment to Contractors and Subcontractors***

Upon receipt of payment from or on behalf of SRTA, DB Team shall promptly pay all Contractors out of the amount paid to DB Team on account of the respective Work performed by such Contractors as and to the extent that such Contractors are entitled to same under the respective Contracts and applicable law. DB Team shall require Contractors by appropriate agreement with the Subcontractors to require all such Subcontractors to make payments to all downstream sub-subcontractors and suppliers in a similar manner. SRTA shall have no obligation to pay or to see to the payment of money to the Contractors or Subcontractors, except as may otherwise be required by Law, provided however, that SRTA reserves the right to make payments to DB Team and jointly payable to any such parties where DB Team has failed to remit payments properly due and as required.

#### ***2.2.12.15 Final Payment***

Final payment will be made in accordance with this Section 2.2.12.15.

#### **2.2.12.15.1 Application for Final Payment**

On or about the date of delivery of SRTA's issuance of the certificate of Final Acceptance, the DB Team shall prepare and submit an application for Final Payment to GDOT showing the proposed total amount due the DB Team. In addition to meeting all other requirements for invoices hereunder, the application for Final Payment shall include (i) the executed release and affidavit described in Section 2.2.12.16 below; (ii) a list of any asserted, outstanding, or pending Relief Events or Compensation Events and all existing or asserted claims, liens, and stop notices by Subcontractors, laborers, Utility Owners, or other third parties relating to the Project, including any notices filed or to be filed with the Affidavit of Final Completion, stating the amount at issue associated with each such notice; (iii) the written consent by the Surety to such payment; and (iv) such other documentation as GDOT may reasonably require.

GDOT will review the DB Team's proposed application for Final Payment, and changes or corrections will be forwarded to the DB Team for correction. If no changes or corrections are required, GDOT will approve the Application for Final Payment.

#### **2.2.12.16 Final Payment**

As a condition to its obligation to make payment to the DB Team based on the application for Final Payment, GDOT shall have received an executed release from the DB Team, releasing and waiving any claims against the Indemnified Parties, excluding only those matters identified in any asserted, outstanding, or pending Relief Event or Compensation Event Notices listed as outstanding in the application for Final Payment, and otherwise satisfactory in form and content to GDOT.

The executed release shall be accompanied by an affidavit from the DB Team certifying the following:

1. All Work has been performed in strict accordance with the requirements of the Contract Documents.
2. The DB Team has resolved any claims made by Subcontractors, Suppliers, Utility Owners, laborers, and others against the DB Team, GDOT, or the Project, except for those claims identified in the Application for Final Payment or those claims for which the Subcontractor has executed a release against GDOT, the Project, and the Payment Bond.
3. The DB Team has followed GDOT's procedures for Final Acceptance and has provided complete lien releases from all Subcontractors and Suppliers, except for those with claims listed above, in a form and with language that will be provided by GDOT.
4. The DB Team has no reason to believe that any Person has a valid claim against the DB Team, GDOT, or the Project which has not been communicated in writing by the DB Team to GDOT as of the date of the certificate.

All prior partial estimates and payments shall be subject to correction in the final payment.

The executed release and the affidavit shall survive final payment. The payment amount will be reduced by any amounts deductible under these DB Documents.

The DB Team's acceptance of final payment shall constitute a waiver of affirmative claims by the DB Team except such claims previously made in writing and identified in writing as outstanding and unsettled at the time of the application for Final Payment.

#### **2.2.12.17 No Waiver**

No payments shall be construed as an acceptance of any defective work or improper materials nor shall any such payments be conclusive evidence of the performance of this Agreement.

#### **2.2.12.18 Disputes**

Failure by SRTA to pay any amount in dispute shall not alleviate, diminish or modify in any respect DB Team's obligation to perform under the DB Documents and DB Team shall not cease or slow down its performance under the DB Documents on account of any such amount. Any dispute regarding such payment shall be resolved pursuant to the Dispute Resolution Procedures.

In the event that SRTA and DB Team disagree as to the form of the Payment Request or other matters relating to the procedure outlined herein, such disputes shall be resolved pursuant to the Dispute Resolution Procedures.

### **2.3 Quality Management Requirements**

#### **2.3.1 Document Management**

DB Team shall establish and maintain an electronic and hard copy document control system to store, catalog, and retrieve all Project related documents in a format that is accepted for use by GDOT. Unless otherwise directed by GDOT, record retention shall comply with the requirements included in the Retention Schedules for State Government Paper & Electronic Records, and the State Agency Specific Schedules for Department of Transportation, and shall be provided to GDOT at the time of the expiration or earlier termination of the Agreement.

#### **2.3.2 Quality Management Plan Submittal Requirements**

DB Team shall submit a comprehensive Quality Management Plan (QMP) to GDOT for acceptance that conforms to the quality assurance procedures with provisions contained in GDOT's Quality Control and Quality Assurance Program and 23 Code of Federal Regulations. The QMP shall be submitted to GDOT for review no later than thirty (30) days from NTP 1. All audits, findings and reports shall be provided to GDOT with all submittals.

#### **2.3.3 Quality Management Plan Requirements**

DB Team shall develop, implement, and maintain the QMP for the Term. The QMP shall describe the system, policies, and procedures that ensure the Work meets the requirements of the DB Documents and provides documented evidence of same.

The complete QMP shall encompass all Work performed by DB Team and Contractors of all tiers.

The QMP shall contain detailed procedures for DB Team's quality control and quality assurance activities. DB Team's quality process shall incorporate planned and systematic verifications and audits undertaken by an independent party. DB Team shall conduct all quality control, quality assurance, and design overlay and coordination among design disciplines, all in accordance with the QMP and the requirements of the DB Documents.

When required by GDOT Specifications and/or DB Documents, inspections, reviews, and testing performed by the DB Team shall only be performed by entities prequalified by GDOT with training, qualifications, and certifications using equipment that is accurately calibrated and maintained in good operating condition at an AASHTO Materials Reference Laboratory (AMRL) (American Association of State Highway and Transportation Officials (AASHTO) R18, *"Establishing and Implementing a Quality System for Construction Materials Testing Laboratories"*) accredited facility, or at a facility with comparable certification (e.g., International Organization for Standardization (ISO) 17025, *"General Requirements for the Competence of Testing and Calibration Laboratories"*).

### 2.3.4 Quality Management Plan Structure

The DB Team shall organize the QMP as follows:

- **Project Quality Management Plan (PQMP)** - a quality policy statement shall be provided which contains a complete description of the quality policies and objectives that the DB Team will implement throughout its organization. The policy shall demonstrate the DB Team senior management's commitment to implement and continually improve the quality management system for the Work. The Quality Management Plan will also include policies, plans, processes and procedures for:
  - Organizational requirements with contact information of the DB Team's Organization as defined
  - Roles and responsibilities of the Quality Team
  - Administrative processes and procedures common to both design and construction quality management
  - Quality records management processes and procedures
  - A comprehensive noncompliance process
  - DB Team's internal and third party quality and compliance auditing processes and procedures

- **Design Quality Management Plan (DQMP)** - including but not be limited to plans, processes and procedures for:
  - Design development including checking, peer review, cross-discipline coordination for developing Project plans, Project specifications and estimates with supporting technical documentation
  - Managing design reviews and changes during design and construction
  - Design Decision Making
  - Design communication, coordination, and collaboration
  - Managing GDOT Reviews and Responses to submittals, Work Change Directives, and Change Requests
  - Document control
  - Design and engineering support during construction, witnesses tests, reviewing quality inspection and test records, responding to Request For Information (RFI's) applications and field changes
  - Independent auditing of design quality management
  - Design criteria adherence
  - Non-compliance management
- **Construction Quality Management Plan (CQMP)** - including but not limited to plans, processes and procedures for:
  - Tracking, Measuring and documenting construction progress
  - Construction decision making
  - Ensuring that only the most up to date Released for Construction documents are be used
  - Plan/Protocols for inspection, testing and maintaining quality certifications
  - Managing reviews and responses to Construction Documentation (RFIs, Field Changes, Design Changes, Construction Changes, Claims, etc., during construction)
  - Managing and tracking accepted construction changes
  - Managing and controlling construction schedule
  - Construction communication, coordination, and collaboration
  - Environmental compliance
  - Non-compliance management

Quality Management Plan forms and checklists are to be used to facilitate and document QA efforts including pre-work activity checklists that depict all items required to perform the particular design, construction and operational efforts, such as; means and methods, subcontractor involvement, materials and inspection / testing requirements.

The DB Team shall maintain construction workmanship and materials quality records of all inspections and tests performed per the approved CQMP. These records shall include factual evidence that the required inspections or tests have been performed by GDOT and its representative, including type and number of inspections or tests involved; results of inspections or tests; nature of defects, deviations, causes for rejection, etc.; proposed remedial action; and corrective actions taken. These

records shall cover both conforming and defective or deficient features, and shall include a statement that all supplies and materials incorporated in the Work are in full compliance with the terms of the Contract Documents. These records shall be available for review and audit to GDOT inspectors.

### **2.3.5 Nonconformance Report (NCR) System**

A Nonconformance Report (NCR) process shall be required to document, report and track Work that fails to conform to the requirements of the DB Documents. Examples of nonconformance's are: physical defects, test failures, incorrect or inadequate documentation or changes from the design processes, inspection or test procedures described in the Project QMP.

GDOT will implement a web-based management system that will have the capability for documenting and implementing the NCRs that includes the description of the NCR, corrective action, action to prevent, the defined roles, dispositions, tracking log, and Work flow states.

The Originator of the NCR indicates the description of the nonconforming Work and the applicable requirements, and assigns the NCR to the Responsible Organization for disposition.

The Responsible Organization gives a full description of the nature, date, location and any other pertinent facts, and also indicates the root cause, corrective actions, actions to prevent recurrence and provides a proposed disposition of the nonconforming Work that is the subject of the NCR, by the DB Team's Quality Manager (QM), the Engineer of Record (EOR), and GDOT. If the disposition is accepted by GDOT Authorized Representative, the Responsible Organization is notified of the final determination. Upon verification that the disposition has been performed, the NCR is closed. If the disposition is not accepted by GDOT, the NCR will remain opened until the disposition is accepted by GDOT.

#### **2.3.5.1 Role Definitions and Order of Review**

For purposes of Nonconformance Reporting, the following terms have the meaning and roles identified below:

- **Originator** – The entity which initiates and creates the Nonconformance Report. The Originator can be the DB Team or GDOT. The Originator closes the Nonconformance Report document once all requirements have been met. The NCR cannot be closed until the Responsible Organization's disposition is accepted by GDOT.
- **Responsible Organization** – The entity to whom the Nonconformance Report is sent. The Responsible Organization is the entity directly responsible for the nonconforming Work on which the Nonconformance Report was written and who

is responsible for correcting the nonconforming Work and provides proposed disposition to resolve the Nonconformance Report.

- **DB Team’s Quality Manager (QM)** – The individual that is responsible for assuring quality of the Work. After the QM has reviewed the Responsible Organization’s disposition, he forwards the Nonconformance Report to the EOR, and the GDOT Authorized Representative.
- **Engineer of Record (EOR)** – The individual that is responsible for the design of the Work. The EOR must review, reject or approve all Nonconformance Reports and supporting documents, subject to the GDOT Authorized Representative’s determination of the accepted Design Documents. Any changes from the requirements of the DB Documents must be presented for acceptance as a Change Request. If the subject of the NCR is not related to a subject that would typically require a design professional’s input, the EOR must note that the NCR is “not applicable”.
- **GDOT** – GDOT must review and make a recommendation to reject or accept all dispositions and supporting documents.
- **GDOT Authorized Representative** – The individual authorized that is responsible for monitoring the Nonconformance Report process.

#### **2.3.5.2 Disposition Options**

After the Originator of a Nonconformance Report (NCR) has activated an NCR, the Responsible Party provides a proposed disposition. Options available for the disposition are defined in the Nonconformance Report as follows:

- **Reject** – The Work is unsuitable for its intended use, and incapable of being reworked or repaired to meet the specified requirements of the DB Documents.
- **Rework** – The deficiency can be brought into conformance with the DB Documents through re-machining, reassembling, reprocessing, reinstallation, or completion of the required operations.
  - Inspection is required after the rework is completed to verify the rework is satisfactory to the Originating Party.
- **Repair** – Action is required that will result in making the Work acceptable for its intended use, as determined by an engineering evaluation although the item might not meet all of the requirements of the DB Documents.
  - Inspection is required after the repair is completed to verify the repair is satisfactory to the Originating Party.
- **Accept-As-Is** – Allows the use of the Work completed that does not meet all requirements of the Design Document requirements, but it is determined by engineering evaluation that the Work will satisfy its intended use.

#### **2.3.5.3 Corrective Action**

In addition to the resolution of nonconformance on an individual basis the corrective action process will urgently recognize, report and resolve systemic and serious deficiencies, including:

- Repetitive NCRs that indicate inadequacies in either production process or inspections
- Issues of safety or conditions likely to have a significant effect on the Project
- Quality procedures not being carried out in a timely fashion

The Corrective Action mechanism will address the possibility that the personnel responsible for the relevant activity might be a primary cause of the deficiencies. Remedial action might involve additional training and in some cases removal of personnel from the activity and/or the Project.

#### **2.3.5.4 Workflow States**

The following workflow states are applicable to the Nonconformance Report:

Table 2.1: Workflow States

| <b>State</b>                     | <b>Description</b>   |
|----------------------------------|--|
| <b>Draft</b>                     | Indicates that the Nonconformance Report is being written.   |
| <b>Active</b>                    | Indicates that the Nonconformance Report has been submitted to the Responsible Organization to provide causes, corrective actions, actions to prevent recurrence and a disposition for the nonconforming Work. |
| <b>Pending Review/Correction</b> | Indicates that the Responsible Organization has responded with a disposition and the disposition is under review. The document is routed to appropriate parties for concurrence/acceptance of the disposition. |
| <b>Pending Closure</b>           | Indicates that the nonconforming has been corrected and Responsible Organization is waiting for inspection/verification and closure.   |
| <b>Closed</b>                    | Indicates that the nonconforming has been resolved satisfactorily and the Nonconformance Report is closed.   |

#### **2.3.6 Quality Management Updates**

The DB Team shall regularly maintain the Quality Management Plan to contain current versions of the following information:

- The organizational chart that identifies all quality management personnel, their roles, authorities and line reporting relationships.
- Description of the roles and responsibilities of all quality management personnel and those who have the authority to stop Work

- Identification of testing agencies, including information on each agency's capability to provide the specific services required for the Work, certifications held, equipment and location of laboratories.

### **2.3.7 Responsibility and Authority of DB Team Staff**

Personnel assigned to perform inspection, testing, or monitoring of characteristics for quality control shall not be those personnel performing or directly supervising the Work being accepted. The DB Team's Quality Manager and quality control staff shall have no responsibilities in the production of the Work.

The Quality Manager shall prepare a monthly report of the quality inspections and tests performed, results of such inspections and tests, and occurrences and resolution of non-conformance discoveries. The DB Team shall submit the monthly reports to GDOT for review.

The DB Team's Quality Manager, quality assurance manager, and quality control manager(s) shall have the authority to stop Work for quality-related issues.

### **2.3.8 Design Quality Management Plan**

It shall be the DB Team's sole responsibility to provide Project plans, drawings, and specifications of such a nature to deliver the finished construction Work in accordance with all DB Documents requirements. GDOT comments pertaining to design documents shall not relieve the DB Team of that responsibility. The DB Team shall not begin Construction Work until all GDOT comments on the design submittal are resolved to the satisfaction of GDOT and the plan is accepted.

The DB Team shall assign a Design Manager that shall be responsible for the supervision and quality of all Design Work and design processes, including but not limited to each of the following:

- Accuracy
- Adequacy
- Conformance to professional standards of practice
- Compliance with all legal requirements and standards mandated by the Agreement
- Quality

The DB Team shall provide independent design checks by independent design review. Independent design reviews are to be performed and documented per the process defined in the DB Team Design Quality Management Plan and completed prior to any submittal to GDOT.

Elements of the Design Quality Management Plan process are:

- **Design Workshop** - Within fifteen (15) days of NTP 1, the DB Team shall arrange a design workshop which will be attended by the Designer's personnel, GDOT, and any invited participants of the Project. The purpose will be to familiarize involved personnel with the design concepts, issues, status, and review procedures. The DB Team and GDOT will jointly develop the agenda of the workshop and how it will be organized (i.e., by GDOT department and engineering discipline). Consensus will be determined during the Design Workshop on the use of Interim Design reviews for facility elements that pose complex or entail additional conflict resolution effort, if applicable. The workshop will also discuss the extent of GDOT reviews. The agenda will include developing agreements regarding time allowed for design reviews. The intent of the workshop is to make the subsequent Design Reviews more effective and efficient for all parties.
- **ITS and Toll System Design Workshop(s) (For Toll Projects Only)** - After roadway geometry is established, but before beginning design efforts for the prototype toll-related ITS, ITS and tolling design plans, the DB Team shall arrange an ITS and Toll System Design Workshop which shall be attended by the DB Team's Design EOR for each of the key disciplines (including but not limited to ITS, Electrical, Structural, Mechanical) for the Tolling Plans / tolling components, GDOT, State Road and Tollway Authority (SRTA), SRTA Toll SI, and any invited participants of the Project. If the DB Team's Design EOR for each of the key disciplines (including but not limited to ITS, Electrical, Structural, Mechanical) for the Tolling Plans / tolling components is not the same, in other words multiple design teams are being utilized concurrently by the DB Team, then all are required to attend for the purpose of consistency in design.

The purpose of this workshop will be to commence coordination with SRTA and SRTA's Toll SI on design elements related to the tolling components. The DB Team and SRTA will jointly develop the agenda of the workshop and location. The required prototype submittals locations will be selected based upon coordination at this workshop. Consensus will be determined during the Design Workshop on when best to schedule the second Toll Design workshop for tolling elements that pose complex site specific constraints or entail additional conflict resolution effort. Additional workshops may be scheduled at the consensus of the DB Team and SRTA as needed.

- **Design Review Quality Plan** - The Design Review Quality Plan shall be part of the Quality Management Plan and be submitted for GDOT review and acceptance within thirty (30) Days from NTP 1. No design submittals shall be provided until the Design Review Quality Plan is accepted by GDOT. The Design Review Quality Plan shall include both the quality responsibilities of the Design Manager and the independent responsibilities of the Quality Manager. The Design Review Quality Plan shall be specific to each stage of design development. The DB Team shall make a single independent comprehensive design check and design review for every submittal. The DB Team shall provide

plans in accordance with the Plan Development Process (PDP), Electronic Data Guidelines (EDG) and the Plan Presentation Guide (PPG) and Manuals for GDOT reviews. Any change of software versions from the Technical Provisions used in producing the plans will be allowed under the condition that the DB Team provides any software, access to software licenses, and training for use of the proposed software. The Design Review Quality Plan stages of design development per the accepted Construction Phasing Plan (see Section 23) are:

- Conceptual Layout Plan for the entire Project (see Section 23)
- Preliminary Plans for the Construction Phase Submittals (See Section 23).
- Final Plans for the Construction Phase Submittals (see Section 23).
- Final Plans (Complete Set) for the accepted Construction Phase.
- As-builts.

The DB Team may choose to submit certain drawings for facilitating better communication with GDOT. Interim Design reviews are intended to resolve conflicts and unresolved comments after the Preliminary Plans have been accepted but prior to Final Plan submittals.

The DB Team shall document all design criteria and design decisions in a Project Design Data Book submitted for approval, per Section 23, and then kept with the project files. The Project Design Data Book shall include complete and up-to-date design parameters and decisions (as applicable to the Project) as presented in Chapter 5, Concept Design of the GDOT Plan Development Process (GDOT PDP) included in Volume 3 Manuals.

The DB Team shall submit the initial Project Design Data Book for GDOT acceptance no later than 30 Days after NTP1. The DB Team shall not submit any Design Submittal until the Project Design Data Book has been approved.

The DB Team shall update and include the relevant portions, or as requested by GDOT, of the Project Design Data Book with each design submittal, including, but not limited to Preliminary Design, Final Design, RFC and RFC revisions. The DB Team shall include the finalized and comprehensive Design Project Data Book with the as-built submittal.

- **Independent Design Checks** - The DB Team shall ensure that independent design checks are carried out by an Independent Design Reviewer not involved in the production of the design being reviewed. Those performing the checks should have equal or greater qualifications and experience as the EOR for the design being checked. The DB Team shall provide to GDOT a plan / process and written procedures for this Independent Design Check. Independent design review shall be provided for each and every design submittal prior to being submitted to GDOT. The DB Team, when requested by GDOT, shall promptly provide access to all comments and comment responses between the DB Teams EOR and the Independent Design Reviewer for each submittal review.

Independent design checks are comprised of design assessment and analytical checks as follows:

- Design Assessment – is a review of general compliance with the requirements of the Agreement, taking into consideration the following areas:
  - Project design criteria;
  - Applicable codes and standards;
  - Methods of analysis;
  - Computer software and its validation;
  - Interface requirements;
  - Materials and material properties;
  - Durability requirements;
  - Constructability;
  - Context Sensitivity; and
  - Environmental Compliance.
  - Any required Design Exceptions and/or Variances.

The Design Exceptions and Design Variances as listed and allowed in Volume 2 Section 11.2.3 shall be updated and provided by the DB Team to GDOT and FHWA as appropriate for review and acceptance. All Design Exceptions and Design Variances shall be submitted and accepted prior to the Preliminary Plan submittal.

- Analytical Check – using separate calculations (and without reference to Designer’s calculations) to establish the structural adequacy and integrity of critical structural members. This includes, but not limited to the following:
  - Structural geometry and modeling;
  - Material properties;
  - Member properties;
  - Loading intensities;
  - Foundation loads; and
  - Structural boundary conditions
- **Changes Subsequent to Review** - If design is amended subsequent to the design review and acceptance by GDOT, the DB Team shall re-check and re-certify the design as an additional design review. Substantive changes to plans and specifications initiated by the DB Team and already checked by the Design Manager and certified by the Quality Manager shall be subjected to the Design Review process as an entirely new design.
- **Design Reviews** - Design review meetings and participation – Design reviews and meetings shall be conducted by the DB Team’s Design Manager. The Quality Manager, the Design Manager, EOR, DB Team’s Independent Design Reviewer, and any Design Professionals having significant input into the design or review shall be present. The DB Team shall notify and invite GDOT to participate in all design reviews. At a minimum, the Design Manager shall

organize and facilitate the design review kick off workshop with GDOT no later than thirty (30) days of NTP 1 to discuss design submittals. Thereafter, design review meetings shall be scheduled monthly until all submittals have been accepted or to the frequency determined by GDOT to ensure process and success is obtained for all design reviews. GDOT may also invite additional stakeholders to attend. GDOT's participation in design reviews shall not relieve the DB Team of its responsibility for the satisfactory completion of the Work in accordance with all requirements of the DB Documents.

The DB Team's Design Manager shall provide the agenda of the meeting in advance of the meetings and provide a detailed summary status of all submittals provided to GDOT for their review. The detailed summary status list at a minimum shall provide date submitted, to whom, contractual required review period, total days in submission, date accepted, and comments.

The DB Team shall provide or make available to review meeting participants all design documents (e.g., drawings, reports, specifications, basis of design memorandums and other technical memorandums as necessary to support design decisions) pertinent to the design review, including all prior comments and actions resulting there from. The DB Team shall prepare and distribute minutes from the review meetings. Design Reviews shall be conducted for the following:

- Conceptual Layout Plans submittal shall include alignment and lane configuration information necessary to verify lane continuity and general scope compliance for the entire Project.
- Preliminary Plans submittal shall be the first design review meeting requiring participation of GDOT and is intended to verify that the concepts proposed by the DB Team comply with the detailed requirements of the DB Documents. The Quality Manager shall verify in writing the compliance and completeness of the design submittal prior to presenting the Preliminary Plans to GDOT for review. The following issues shall be discussed:
  - All requirements of the DB Documents applicable to the proposed concept documents, including all applicable standards and legal requirements, environmental compliance, and environmental permit conditions, have been identified, and the proposed designs are in compliance.
  - The proposed concepts are substantiated and justified by adequate site investigation and analysis.
  - Right of way requirements have been identified and any changes to the proposed Right of Way (ROW) have been addressed for GDOT to maintain and operate the Project after Final Acceptance.
  - The proposed concepts are constructible.
  - Required materials and equipment are available.
  - The proposed concepts meet all quality requirements, and all required Quality Management Plan procedures have been followed including for site maps and concept drawings and draft

specifications for any materials or methods that are not industry standard.

- All Design Exceptions and Variances accepted.
- Optional limited Interim Design reviews are intended to resolve conflicts and unresolved comments after the Preliminary Plans have been accepted but prior to Final Plans. The DB Team should use Interim Design Reviews to remedy conflicts, account for exceptions, and incorporate betterments. The DB Team shall notify GDOT if Interim Design reviews are necessary and shall schedule the necessary design reviews. Workshops, meetings and “over-the-shoulder” reviews are means to facilitate Interim Design reviews by GDOT.
- The DB Team may also use Interim Plan reviews to verify that the concepts and parameters established and represented by Preliminary Plans are being followed, and that all requirements of the DB Documents continue to be met. The DB Team shall specifically highlight, check, and bring to the attention of GDOT any information differing from or supplemented to that presented at the Preliminary Plan review.
- Final Plan reviews shall verify that the concepts and parameters established and represented by Preliminary Plans and any Interim Designs are being followed and that all Agreement requirements continue to be met. The DB Team shall specifically highlight, check, and bring to the attention of GDOT any information differing from or supplemental to that presented previously. Prior to scheduling the Final Plan review with GDOT, the Quality Manager’s independent review shall have been completed.
- The DB Team shall be responsible for demonstrating that any proposed specifications meet or exceed the minimum Agreement and permit requirements. GDOT shall have final determination at its sole discretion that these requirements are being met and that the specifications are suitable and appropriate to control the Work.
- Temporary works design reviews, except where public safety might be affected, are the responsibility of the DB Team to assure conformance with the Final Plans and specifications and in accordance with the Agreement requirements. The DB Team shall verify pertinent dimensions in the field prior to conducting a temporary works plan review. The DB Team shall check, review, and certify temporary works designs prior to their use in fabrication and/or construction.
- The review of as-built record documents shall be performed initially by the DB Team to assure “red-lines” and authorized changes to the Final Plans are properly notated on the record plans and specifications, and that quality documents and facility records indicating variances or changes have been reflected on the plans and specifications. Once the DB Team has completed their review the as-built records are to be submitted to GDOT for review and acceptance.
- Design quality records shall be maintained by the DB Team in an auditable format according to the Quality Management Plan procedures.

GDOT has the right to audit the quality records for compliance with the Quality Management Plan and the Agreement requirements. Upon completion of the Project, the Quality Records are turned over to GDOT.

### **2.3.9 Record Drawings and Documentation**

Within 30 days of Substantial Completion and prior to Final Acceptance, the DB Team shall submit to GDOT a complete set of Record or As-Built drawings for all the Construction Phases of the Project. The Record Drawings and documentation shall be an organized, complete record of Plans and supporting calculations and details that accurately represent what the DB Team constructed. The DB Team shall ensure that the Record Drawings reflect the actual condition of the constructed Work.

Record Drawings shall be submitted in hard copy and electronic format for the portion of the Project actually opened to traffic. Refer to Section 23 of Volume 2 for submittal requirements. The DB Team shall include a signed statement ensuring that the Record Drawings reflect the actual condition of the constructed Work.

## **2.4 Requirements for GDOT Office and Equipment**

Refer to Volume 2

## **2.5 Web-Based Project Management Program**

GDOT will implement a project web-based management website throughout the term of the Agreement for file storage, communication, and correspondence. The DB Team is required to access and use the web-based project management system provided by GDOT.

This system provides all project team members:

- Simplification of communications
- Automated tracking of time-sensitive information
- Automated reporting
- Common document storage and management audit trail of information
- Secure, real-time 24/7 access and exchange of information

All project team members shall be required to use this system for all official project communications and interactions, including:

- Correspondence
- Quality Management Plan and submittals
- Issues
- Meetings
- Design Management
- RFIs (Requests for Information)

- Submittals
- Schedule submittals
- Nonconformance reporting (NCR's)
- Punch Lists
- Reporting
- Document Management (see table below for the required File Naming Convention)
- Construction Drawing Management (including management markups, versions and revisions)
- Project Archiving and Closeout
- As-Built Drawing Management
- Conformance to Web-Based System

**All project team members shall use the web-based project management system on a daily basis to perform their project responsibilities in a timely manner.**

Additional requirements/guidelines of the system:

- The web-based system shall be used to track and manage the Project and will be an official record of all project communication. Organizations shall post key project-related information to the system. GDOT shall provide a system that will at a minimum provide a shared interface for: meeting minutes, Requests for Information (RFIs), general correspondence / transmittals, Punch List, Nonconformance Reports (NCRs), inspection logs and reports, management audit logs and reports, and Submittals including schedule updates and schedule revisions.
- No later than thirty (30) calendar days after NTP 1, all project team organizations involved shall designate a web-based project management system coordinator (an internal point of contact) and provide coordinator's name, phone and e-mail to GDOT and DB Team.
- All users of this web-based project management system must complete training prior to having access to the system. GDOT will provide this training.
- All project team members will be solely responsible for establishing and furnishing high-speed internet connectivity (T1, cable modem, or DSL connectivity is recommended) to access the web-based project management system.
- Submittals must be made, tracked, and reviewed via the system. In the case where physical samples are required, the submittal will still be reviewed and tracked via the system. The sample itself will be transmitted to the reviewer via traditional means.
- The DB Team and GDOT shall utilize the filing naming convention as provided in the table below.

All Submittals shall be provided to the web-based project management system. Project documents shall comply with the naming convention requirements of GDOT's Electronic

Data Guidelines (EDG). When not specified in the EDG, project documents transmitted via the system must comply with the following electronic formats:

- Documents generated in Computer Aided Design (CAD) applications (MicroStation V8 or InRoads) shall be submitted in Portable Document Format (PDF) generated by a PDF writer from the CAD application.
- Documents that are marked up or unavailable in electronic format (drawings, sketches, correspondence, etc. generated by hand drafting methods) shall be scanned to Tagged Image Format version 5 or 6 [TIFF 5 or 6 (.TIF)], Bitonal [or Black and White (a.k.a. Line Art), on some scanners] (.tif) or PDF (.pdf), black and white with a resolution of 200 dpi using CCITT Group 4 (2d Fax) compression.
- Documents that have been generated using PDF printer drivers (not scanned) shall be submitted via the system.
- Electronic photographs shall be submitted in Joint Photographic Experts Group (JPEG) (.jpg) file format, sized at a minimum resolution of 1024x768 pixels.
- Grayscale or color photo images that are scanned shall be saved in JPEG (.jpg) file format with medium to low quality compression at a resolution of 200 dpi.
- Product data that is available for download from the manufacturer's website that has been generated using PDF printer drivers (not scanned) may also be submitted via the System.

### File Naming Convention

The following file naming convention shall be used on all correspondence created or issued by the project and for filing any document.

**PI\_Date\_File Type ID\_File Name**

All FINAL versions of documents to be saved in the “**Final Deliverables**” folder as follows:

**PI\_Date\_File Type ID\_File Name (Final)**

Date will be represented in **YYYY-MM-DD** format; using two digits for the month and the date and four digits for the year. For example, July 4, 1776 will be represented as 1776-07-04.

You may use “versions” or “drafts” included in the file name portion of the naming convention for the non-final document.

**Table 2-2: File Type Identification Table**

| <i>File Type ID</i> | <i>File Type</i> | <i>File Type</i> |
|---------------------|------------------|------------------|
|---------------------|------------------|------------------|

| <b>File Type ID</b> | <b>File Type</b>                  | <b>File Type</b>   |
|---------------------|-----------------------------------|--|
| AB                  | As-Builts                         |  |
| AC                  | Accidents                         |  |
| AD                  | Advertisement                     | Advertisements to the public, such as advertisement for intent to post RFQ (NOI), advertisements for public meetings (PIOH & PHOH), etc. |
| AP                  | Acceptances                       |  |
| AUD                 | Document Audit                    |  |
| BND                 | Bond Related                      | All bond related items.  |
| CAL                 | Calculations                      |  |
| CI                  | Contractor Invoices               |  |
| CL                  | Claims                            |  |
| CM                  | Construction Management Related   |  |
| CO                  | Change Order Documents            |  |
| COM                 | Comments                          |  |
| COR                 | Correspondence                    | Not to be used for letters (see LTR) and memorandums (see MEM).  |
| CR                  | Construction Reports              | Construction reports of any frequency; the name of the file will clarify frequency of reporting/   |
| CST                 | Cost Estimate                     |  |
| CT                  | Contract Document, RFP, RFQ       |  |
| DBE                 | Disadvantaged Business Enterprise |  |
| DW                  | Drawing                           | Examples: PDF of CAD drawings.   |
| EEO                 | Equal Employment Opportunity      |  |
| EM                  | E-Mail                            | Emails are NOT considered deliverables, this is for record keeping purposes.   |
| ENV                 | Environmental                     | All Environmental Documents, including special studies.  |
| FAX                 | Facsimile                         |  |
| FP                  | Financial Plan                    |  |
| INS                 | Insurance Related                 | All insurance related items.   |
| IGA                 | Intergovernmental Agreements      |  |
| ISS                 | Issues                            | Design related issues and request for information.   |
| LCR                 | Lane Closure Requests             |  |

| <i><b>File Type ID</b></i> | <i><b>File Type</b></i>                  | <i><b>File Type</b></i>  |
|----------------------------|--|--|
| LD                         | Liquidated Damages                       |  |
| LOG                        | Log                                      |  |
| LTR                        | Letter                                   |  |
| MA                         | Meeting Agenda                           |  |
| MAT                        | Materials Related                        |  |
| MDR                        | Materials Deficiency Reports             |  |
| MEM                        | Memorandum                               | To be used for correspondence with "memorandum" in the subject line.           |
| MM                         | Meeting Minutes                          |  |
| MOT                        | Maintenance of Traffic                   |  |
| MP                         | Project Master Plans, Planning Documents |  |
| MSC                        | Miscellaneous                            |  |
| MSI                        | Meeting Minutes Sign-In Sheet            |  |
| MUN                        | Municipal                                |  |
| NCR                        | Nonconformance Report                    |  |
| NOI                        | Notice of Intent                         |  |
| NTF                        | Note to File                             |  |
| NTP                        | Notice to Proceed                        |  |
| OM                         | Operation & Maintenance                  |  |
| PCR                        | Project Change Request Document          |  |
| PDI                        | Product Data and Information             | Examples: bottomless culvert product catalog, guardrail beam information, etc. |
| PER                        | Permit Related                           |  |
| PIX                        | Photos                                   |  |
| PL                         | Punch List                               |  |
| PM                         | Project Management                       | All project management related documents and files.                            |
| PP                         | Program Procedure                        |  |
| PPM                        | Policies and Procedures Manual           |  |
| PS                         | Plan Specification(s)                    |  |

| <i>File Type ID</i> | <i>File Type</i>                                    | <i>File Type</i>  |
|---------------------|---|---|
| PST                 | Presentation  | PowerPoint and other types of presentations; not to be used for animations (see VID)  |
| PT                  | Permit  |   |
| PUB                 | Public Involvement                                  | To be used for all outreach related documents and files, including stakeholder, industry, agency and legislator outreach                  |
| QA                  | Quality Assurance                                   |   |
| QC                  | Quality Control                                     |   |
| REG                 | Regulatory Agencies                                 | To be used for documents and guidelines published by regulatory agencies; NOT to be used for permit related files and documents (see PT). |
| RES                 | Research  |   |
| REV                 | Plan Revisions                                      |   |
| RFI                 | Request for Information                             | Construction related issues and request for information.  |
| RFP                 | Request for Proposal                                |   |
| RFQ                 | Request for Qualifications                          |   |
| ROW                 | Right of Way  |   |
| RP                  | Report (All Technical Reports)                      | All technical analyses, studies, whitepapers, etc.; EXCEPT environmental related documents and files (see ENV).                           |
| SCH                 | Schedule  |   |
| SDW                 | Shop Drawing  |   |
| SP                  | Specification/Special Provision                     |   |
| SR                  | Status reports, progress reports, narrative reports | The name of the file needs to clarify type and frequency of reports.  |
| SRV                 | Submittal Review                                    | NOT to be used for plan revisions (see REV).  |
| STD                 | Project Standards                                   |   |
| SUB                 | Subcontractors                                      |   |
| SUR                 | Survey  | Land survey information and documents, not question surveys   |
| TE                  | Time Extension                                      |   |
| TRF                 | Traffic Related                                     |   |
| TX                  | Transmittal   |   |
| UTL                 | Utility   |   |

| <i><b>File Type ID</b></i> | <i><b>File Type</b></i> | <i><b>File Type</b></i>                        |
|----------------------------|-------------------------|--|
| VID                        | Video                   | Animations; daily videos of construction sites |
| WAR                        | Warranty Related        | All warranty related items                     |

## **3 PUBLIC INFORMATION AND COMMUNICATIONS**

### **3.1 General Requirements**

*See Section 3 of Volume 2.*

### **3.2 Administrative Requirements**

#### **3.2.1 Public Information and Communications Plan**

*See Section 3 of Volume 2.*

#### **3.2.2 Project Information Coordinator**

*See Section 3 of Volume 2.*

#### **3.2.3 Public and Stakeholder Meetings**

*See Section 3 of Volume 2.*

#### **3.2.4 Monthly Public Information and Communication Reporting**

*See Section 3 of Volume 2.*

#### **3.2.5 Emergency Event Communications**

*See Section 3 of Volume 2.*

#### **3.2.6 Public Information**

*See Section 3 of Volume 2.*

#### **3.2.7 Public Involvement Action Items**

*See Section 3 of Volume 2.*

## 4 ENVIRONMENTAL

### 4.1 General Requirements

The DB Team shall comply with all environmental laws, regulations, and policies set forth by the federal, state, and local agencies with jurisdiction over the construction activities associated with the Design-Build Project as described in the approved environmental document and permits. The DB Team shall follow all pertinent policies and procedures as described in the 23 Code of Federal Regulations (CFR) 771, O.C.G.A. 12-16-1, and GDOT - Environmental Procedures Manual. The DB Team shall be responsible for coordination with GDOT, and other required approval agencies to ensure that commitments made during the environmental review are being met. The DB Team shall be responsible to reassess Project impacts and for additional associated costs incurred due to any changes in the Project impacts as described in the approved Environmental Document. This may require resubmittal of environmental studies for approval by applicable agencies. The DB Team cannot complete the environmental document or reevaluation. GDOT shall be responsible for completing and resubmitting environmental documentation.

The DB Team shall execute the Environmental Commitments required by the approved Environmental Documents, DB Documents, Governmental Entities, Governmental Approvals, and all applicable federal and state laws and regulations

The DB Team's obligation regarding Governmental Approvals and laws, including environmental laws and regulations, and the DB Team's obligation for environmental compliance is set forth in Volume 2, Section 4.1. Limits of the Project and Proposed Right of Way will be described in the approved Environmental Document.

The DB Team shall cause Work to comply with approved Environmental Document, permit, and compliance requirements for any additional actions throughout the Term of the DB Documents. The DB Team shall monitor and document Work activities so that documents providing evidence for compliance are available to FHWA and Governmental Entities (as applicable) and GDOT for inspection at any time. Evidence of compliance activities may include photo documentation and other appropriate methods to demonstrate compliance. The DB Team shall execute the environmental mitigation plan, which lists responsible parties for environmental commitments detailed in the approved Environmental Document as agreed on by GDOT and/or other approval agencies.

The DB Team will commit to explore the use of environmentally sustainable practices and/or materials in the development of the Project.

If the Environmental Documents have not yet been approved, the alternative is not "selected"; therefore, the "No-Build" option is still a viable alternative for the Project.

If the “No-Build” alternative is selected, the Project will be terminated according to Article 19 of the Design-Build Agreement.

## 4.2 Environmental Approvals

### 4.2.1 Responsibilities Regarding Environmental Documents

Environmental Documents shall be prepared and approved by GDOT prior to the contract award. Such approvals may require re-evaluation, amendment, or supplement as the Work progresses or in order to accommodate actions not identified in the approved Environmental Document or covered specifically by existing resource agency coordination and permits. On behalf of GDOT, the DB Team shall be responsible to validate, provide design information to support additional environmental studies (cultural resources, ecology, aquatics, traffic, noise, and/or air) conducted by GDOT or on behalf of GDOT by others, as appropriate and requested by GDOT, and comply with the Environmental Commitments identified in the approved Environmental Document within the final limits of the Project and subsequent approved Environmental Documents as updated to incorporate the DB Team’s Schematic Plan of Project or Design Documents or due to regulatory or policy changes. The DB Team shall follow GDOT policies and procedures when conducting these activities for the Project.

If the DB Team’s Schematic Plan of Project or Design Documents deviate from the plan set incorporated into the approved Environmental Documents, then GDOT and/or Governmental Entities will need to conduct an assessment to determine whether the approved Environmental Documents remain valid. DB Team shall provide information to support evaluation of the deviations from the plan set incorporated into the approved Environmental Documents. The DB Team shall facilitate a meeting with GDOT within 45 days of NTP 1 to discuss potential deviations from the approved Environmental Document. The following terms define GDOT and/or FHWA required documentation needed to assess impacts to the approved Environmental Document:

- **No Change Reevaluation:** No design or regulatory changes have occurred since the last approved Environmental Document. As applicable, GDOT will utilize document procedures following the Memorandum of Agreement with FHWA dated July 19, 2016.
- **Change Reevaluation (design modifications):** The Schematic Plan for the Project or Design Documents contain modifications to the design in the plan set incorporated into the approved Environmental Documents; the project corridor in the area of the changes (or as applicable) must be considered for additional or reduced environmental impacts. There may be a need for additional agency coordination as a result of the design modifications. As applicable, GDOT will utilize document procedures following the Memorandum of Agreement with FHWA dated July 19, 2016.

- **Change Reevaluation (regulatory/policy changes):** Changes in law or regulatory practice may require additional survey or technical analysis, environmental condition changes over time, and associated agency coordination. The additional analysis may be required regardless of design changes, construction staging, etc. (There may be no action taken by the design team that would trigger the additional technical analysis).

The DB Team will be responsible for ensuring compliance with the conditions and schedules set forth in amendments to any approved Environmental Documents due to deviations in the plan set incorporated into the approved Environmental Documents in the Schematic Plan for the Project and/or the Design Documents..

The DB Team assumes all risk arising out of or related to deviations from the plan set incorporated into the approved Environmental Documents. The DB Team is encouraged to minimize deviations from the plan set incorporated into the approved Environmental Documents. The DB Team shall be responsible to provide all information reasonably required to support evaluation of deviations from the plan set incorporated into the approved Environmental Documents and to comply with all policies and procedures of GDOT and Governmental Entities having jurisdiction over the Project. GDOT shall be responsible for all coordination of environmental studies with appropriate Governmental Entities. The DB Team is responsible to provide GDOT with the information reasonably required for coordination with Governmental Entities. The DB Team is required to have staff that meet the GDOT environmental prequalification requirements.

The approval time frames for Environmental Documents are listed in Table 4-1 and 4-2. The Tables below do not include any required public comment period and responding to the public comments. GDOT shall be responsible for the NEPA/GEPA Reevaluation and studies as provided in Table 4-1 and 4-2. GDOT will coordinate and provide approved documentation to the appropriate Governmental Entities. The review and issuance time periods listed in Table 4-1 and 4-2 are per agency and may not occur concurrently. GDOT reserves the right to request to revisions as needed to meet Governmental Entity approval. The timeframe for the development of the technical studies and NEPA document Reevaluation are subject to the extent of change proposed by the DB Team therefore, GDOT reserves the right to develop schedule durations as appropriate after receipt of the DB Team's 60% design plans.

**Table 4-1 GDOT Led Environmental Approval**

| <b>Document*</b>                    | <b>Governmental Entity Approval Time Frame</b> | <b>Reviewing Governmental Entity</b> |
|-------------------------------------|--|--------------------------------------|
| Environmental Document Reevaluation | Review period 1: 30 days                       | GDOT                                 |

|                             |   |   |
|-----------------------------|---|---|
| Approval                    | Review period 2: 14 days  |   |
|                             | Review period 1: 30 days<br>Review period 2: 14 days                                    | FHWA                                      |
| Ecology Report and Addendum | Review period 1: 30 days<br>Review period 2: 14 days                                    | GDOT                                      |
|                             | 30 days   | USACE                                     |
|                             | 45 days (informal section 7)  | USFWS                                     |
|                             | 135 days<br>(for formal Section 7)  | USFWS                                     |
|                             | 45 days<br>(for protected species - for Fish and Wildlife Coordination Act concurrence) | USFWS                                     |
| Section 106                 | 30 days   | GDOT                                      |
|                             | 45 days   | USACE                                     |
|                             | 30 days   | State Historic Preservation Office (SHPO) |
| Noise Report and Addendum   | 60 days   | GDOT                                      |

|                                 |         |                                   |
|---------------------------------|---------|-----------------------------------|
| Air Quality Report and Addendum | 30 days | GDOT                              |
| Traffic Report and Addendum     | 45 days | GDOT or FHWA (per PoDI Agreement) |

\*FHWA intends to publish a notice in the Federal Register following NEPA Approval and the Section 404 permit, as applicable. If such a notice is published, claims seeking judicial review of this federal action will be barred unless such claims are filed within one hundred and fifty (150) days after the publication date of the Federal Register notice for each federal action (e.g. NEPA Approval and/or Section 404 permit). At minimum, the period of time may only be limited by the Administrative Procedures Act of 1946 (APA) (5 United States Code [USC] Section § 701-06).

#### 4.2.2 GDOT Review and Approval of Environmental Permits

The DB Team shall be responsible for preparing required permits and permit modifications as stated in Table 4-2. The DB Team is responsible to obtain all other permits not included in Table 4-2 to meet the requirements of the DB Documents. GDOT will be responsible for reviewing the permits and permit modifications and submitting to the appropriate Governmental Entities, unless the applicant is listed as the DB Team. Documentation not meeting current submission standards or requirements of Governmental Entities will be returned to GDOT, and shall be revised by the independent consultant at DB Team's cost. GDOT reserves the right to review, comment on, require revisions to, and reject for resubmission documentation submitted to GDOT by the consultant or the DB Team for environmental compliance or approval. The agency review time frame for permits is specified in Table 4-2. The review and issuance time periods listed in Table 4-2 for DB Team-Led Approvals do not apply to any revisions of the new permit applications proposed by the DB Team's "Schematic Plan of Project".

**Table 4-2 DB Team-Led Environmental Permit Approval**

| Permit Required   | Agency Review and Issuance Time Period (Calendar Days)*** | Listed Applicant | Preparer of Application |
|---|---|------------------|-------------------------|
| United States Army Corps of Engineers (USACE) Section 404 |   |                  |                         |
| * Section 404 General Permit                              | 140   | GDOT             | DB Team                 |
| ** Section 404 Individual Permit                          | 240   | GDOT             | DB Team                 |
| Subsurface testing of all                                 | 150   | GDOT             | DB Team                 |

| Permit Required   | Agency Review and Issuance Time Period (Calendar Days)*** | Listed Applicant | Preparer of Application |
|---|---|------------------|-------------------------|
| Underground Storage Tanks and Hazardous Materials   |   |                  |                         |
| National Pollutant Discharge Elimination System (NPDES) Construction General Permit (GAR100002), Notice of Intent | 14  | DB Team          | DB Team                 |
| NPDES Construction General Permit (GAR100003), Notice of Intent   | 90  | DB Team          | DB Team                 |
| NPDES Construction General Permit (GAR 150000), Notice of Termination   | 90  | DB Team          | DB Team                 |
| Georgia Stream Buffer Variance  | 150   | GDOT             | DB Team                 |
|   |   |                  |                         |
|   |   |                  |                         |

\* This applies to Section 404 permitting and if additional impacts are incurred after the permit has been approved, a new permit that covers all impacts is required and the original review times apply to the new permit. No work is authorized in the areas of the previous permit until the new permit is approved and construction authorization is received.

\*\* This applies to Section 404 permitting impacts which may exceed the cumulative threshold for a General Permit.

\*\*\* The review and issuance time periods shall commence once a completed permit package that complies with the requirements of the DB Documents is accepted by GDOT and submitted to the issuing agency and end once the permit is issued by the appropriate Governmental Entity. Therefore, the DB Team shall schedule several review periods to ensure proper planning to accomplish the entire process for each required permit. Each GDOT review period is thirty (30) Days. Should the Submittal not be complete or rejected as provided in Section 23, each subsequent review period shall be fifteen (15) Days, and is excluded from the timeframe in Table 4-2 above.

The above permits and review times do not contemplate offsite plant or other offsite activity that DB Team may propose for use in construction or other non-permanent construction.

## 4.3 Required Submittals

Refer to Volume 2.

## 5 RESERVED

## 6 UTILITY ADJUSTMENTS

### 6.1 General Requirements

By Georgia Statutes, utilities, whether public or privately owned, aerial or underground, are permitted by the Department and local governments to be accommodated within the public right of way. To this end, the DB Team will make every effort to avoid utilities. Design/construction techniques that minimize or avoid utility conflicts may involve increased upfront costs; however, those costs may be offset by savings during construction, in addition to the total cost savings for the Project (the Department or local government) and the respective utility owners. This Section 6 establishes procedures and requirements for Utility Adjustments including such processes as coordination with Utility Owners, administration of the engineering, construction and other activities necessary for Utility Adjustments, and required documentation.

Additional guidance for accommodating utilities within the right of way are given in the AASHTO publications: A Guide for Accommodating Utilities within Highway Right of Way, A Policy on Geometric Design of Highways and Streets; the TRB publication: Policies for Accommodation of Utilities on Highway Rights-of-Way; and in GDOT's Utility Accommodation Policy and Standards, current edition.

The Utility Plans are used as the primary tool to identify and resolve utility related conflicts/issues prior to beginning the construction of a Project. Also, when these plans are properly prepared per guidance in this Section 6, they will support the vital coordination required between the DB Team and the Utility Owner during construction.

Utility plan sheets are comprised of completed roadway plan sheets, but shall contain more detailed information featuring existing and proposed utility facilities. Specific requirements for Utility Plans are detailed in this Section 6.

The DB Team shall cause all Utility Adjustments necessary to accommodate the project. GDOT will assist the DB Team in the Utility Adjustment process to the extent as described in the Design-Build Agreement and the Utility Accommodation Manual (UAM). Some utility adjustments may be performed by the Utility Owner with its own forces and/or the Utility Owner's pre-approved design consultants and construction contractors; all others will be performed by the DB Team with its own forces and/or contractors and consultants (subject to the approval rights required by the utility owner for those working on their own facilities). The allocation of responsibility for the Utility Adjustment work between GDOT and the Utility Owner will be specified in the Memorandum of Understanding (MOU) and if needed a Standard Utility Agreement (SUA) or a Contract Item Agreement (CIA)..

#### 6.1.1 Utility Adjustment Relocation Costs

The DB Team shall be responsible for all Utility Adjustment Work associated with the Project, with the exception of Betterment and items explicitly excluded within the MOU's. Utility Adjustment Work shall be included in the DB Team's overall contract cost.

### **6.1.2 When Utility Adjustment is Required**

Utility Adjustment may be necessary to accommodate the Facility for either or both of the following reasons: (i) a physical conflict between the Facility and the Utility, and/or (ii) an incompatibility between the Facility and the Utility based on the requirements in Section 6.2.1 (Standards), even though there may be no physical conflict. The physical limits of all Utility Adjustments shall extend as necessary to functionally replace the existing Utility, whether inside or outside of the Existing ROW and Proposed ROW. Section 6.2.4.2 (Acquisition of Replacement Utility Property Interests) contains provisions that address the acquisition of easements for Utilities to be installed outside of the Existing ROW and Proposed ROW. It shall be the Design-Build Team's responsibility to work with Utility Owners and Utility Owner pre-approved design consultants and construction contractors to accomplish any required Utility Adjustments. The DB Team will be required to select a design consultant and construction contractor from the Utility Owner pre-approved design consultant and construction contractor list in the MOU to accomplish any needed relocation design and construction.

### **6.1.3 Certain Components of the Utility Adjustment Work**

#### **6.1.3.1 Coordination**

The DB Team shall communicate, cooperate, and coordinate with GDOT, the Utility Owners, Utility Owner's pre-approved design consultants and construction contractors, property owners, local agencies (Government Entities), locally impacted businesses, and potentially affected third parties, as necessary for performance of the Utility Adjustment Work. The DB Team shall provide advance notification to all impacted local agencies, business and property owners for and planned disruption of service. The DB Team shall coordinate with GDOT for any public outreach for planned utility disruptions as required. The DB Team shall be responsible for assisting in the preparation of all SUA and CIA as required. Utility Agreement Templates can be acquired from the State Pre-Construction Utility Engineer.

The DB Team shall have the responsibility of coordinating the Project design and construction with all Utility Owner's pre-approved design consultants and construction contractors that may be affected. Coordinating responsibilities shall include but not be limited to the following:

- The DB Team shall initiate early coordination with all Utility Owners located within the Project limits. All Utility Coordination shall be performed to GDOT standards by a prequalified firm in Area Class 3.10 - Utility Coordination. Refer to the following website for a list of current prequalified firms:

<http://www.dot.ga.gov/PS/Business/Prequalification/PrequalConsultants>

- The DB Team shall be responsible for the cost of Utility Coordination. Coordination shall include, but shall not be limited to, contacting each Utility Owner to advise of the proposed Project; supplemental verification of the locations of existing utility facilities (including the employment of additional Overhead/Underground Subsurface Utility Engineering investigations (SUE)) as needed in determining requirements for the relocation or adjustment of facilities. The DB Team shall be responsible for coordination with the Utility Owner's pre-approved design consultant and construction contractor.
- The DB Team shall meet with all Utility Owners within the Project limits, Department's District Utilities Office and the State Subsurface Utilities Engineer (or designee) for a SUE Kick-Off meeting (concurrent with the first utility coordination meeting) within 15 days of the Notice to Proceed 1 to gain a full understanding of what is required with each submittal and the overall project utility coordination processes.

#### **6.1.3.2 Betterments**

Replacements for existing Utilities shall be designed and constructed to provide service at least equal to that offered by the existing Utilities, unless the Utility Owner specifies a lesser replacement. Utility Enhancements are not included in the Work; however, any Betterment work furnished or performed by the DB Team as part of a Utility Adjustment shall be deemed added to the Work, on the date the SUA or CIA providing for same becomes fully effective. The DB Team shall perform all coordination necessary for Betterments.

- Titles 32-6-170 and 32-6-173, of the O.C.G.A., authorizes the Department to pay the cost of removing, adjusting, and relocating any public utility given certain provisions are met. Such provisions for reimbursement are detailed in Section 4.2 of the UAM. However, all such costs the Department is authorized to pay or participate in shall be limited to the costs of removing, adjusting, and relocating those facilities which are physically in place and in conflict with proposed construction and, where replacement is necessary, to the costs of replacement in-kind. That proportion of the costs representing improvement or betterment in a facility shall be excluded from the costs eligible for payment or participation by the Department, unless required to meet current laws, regulations, industry standards or codes.
- **Contract Item Agreement (CIA)** - Used for including utility work in the Department's project and performed by the DB Team. Any utility system upgrades, betterments, or non-reimbursable relocations (not covered in the Cases specified in Section 4.2.A.2 of the UAM) to be installed in the Department's project shall require reimbursement to the DB Team from the Utility.

### **6.1.3.3 Protection in Place**

The DB Team shall be responsible for Protection in Place through the use of a GDOT approved Retention Request of all Utilities impacted by the Project as necessary for their continued safe operation and structural integrity and to otherwise satisfy the requirements described in Section 6.2.1 (Standards). The DB Team shall submit to GDOT for review and acceptance a Retention Request for each utility that will remain in place in accordance with GDOT's *Utility Accommodation Policy and Standards Manual*.

### **6.1.3.4 Abandonment and Removal**

The DB Team shall make all arrangements and perform all work necessary to complete each abandonment or removal (and disposal) of a Utility in accordance with the requirements listed in Section 6.2.1 (Standards), including obtaining Governmental Approvals and consent from the affected Utility Owner and any affected landowner(s), or shall confirm that the Utility Owner has completed these tasks.

The Utility shall notify the DB Team and the Department in writing of the intention to abandon its facilities in place. Such abandoned installations within the right-of-way shall remain the responsibility of the Utility. The Department may give reasonable notice to require the removal of abandoned utility facilities and restoration of the right-of-way, or the filling of any such facility by an approved method, when necessary to avoid interference with the operation, maintenance or reconstruction of the highway. Any utility facility that the Utility requests to abandon shall conform to the following:

- All underground non-metallic utility facilities to be abandoned shall be locatable using a generally accepted electro-magnetic locating method to enable pipe and cable locates.
- Any underground utility facility, approved or elected to be abandoned in place, larger than 2 inches up to 6 inches, inside diameter, shall be plugged at all open ends of the abandoned facilities. All facilities with an inside diameter larger than 6 inches shall be grout filled 100%. A request for an exception to this policy may be made to the State Utilities Engineer on a case by case basis when proven that no detriment will come to the roadbed by doing so.

### **Hazardous Utility Facilities to be Abandoned**

Whenever an existing utility facility contains a hazardous material and such facility exists in the public rights of way of any highway, road, or street, and the Utility determines that such facilities will no longer be utilized, the Utility that owns and operates the utility facility shall submit the Request For Retention Of Abandoned Facilities Containing Hazardous Materials form along with a permit through Georgia Utility Permitting System (GUPS) to the Department. Upon request for abandonment, the Utility shall have the discretion to:

- Remove and dispose of the asbestos pipe in accordance with federal laws and regulations;
- Leave the asbestos pipe in place and fill it with grout or other similar substance designed to harden within the pipe; or
- Allow the pipe to remain undisturbed in the ground and take no further action.

At the request of the Department or Utility, any hazardous material left in the right of way as authorized by the approval of the permit and accompanying Request for Retention of Abandoned Facilities Containing Hazardous Materials form shall be marked as to be locatable. The approved permit and form will indicate how the abandoned facility will be located. The Utility shall not relinquish the ownership of said facility as stated in Official Code of Georgia Annotated (OCGA) Section 25-9 and Section 32-6-174; it shall be deemed abandoned and out of service. If the Utility selects either item (b) or (c) above as part of a new utility installation request and said abandoned facility is later determined, at any time in the future, to be part of a highway improvement or project that the Department is undertaking or plans to undertake, or is in conflict with any other operation or activity upon said rights of way, by either the Department or others, then said facility shall be removed by the Utility in accordance with federal laws and regulations. Any costs, claims, or other liability associated with the owner's decision pursuant to this section shall be borne by said Utility.

The entity shall also provide plans “marked so as to be locatable” with the following at each end of the proposed abandonment.

- X, Y, and Z using the North American Datum of 1983/1994 = NAD83(94) and North American Vertical Datum of 1988 = NAVD88.
  - Elevation of top and/or bottom of utility tied to datum.
  - Elevation of existing grade over end of facility tied to datum.
  - Horizontal location referenced to coordinate datum.
  - Furnish, install, and color code a permanent above ground marker (i.e., P.K. nail, peg, steel pin, or hub) directly above the centerline of the structure and record the elevation of the marker.
  - Elevations shall have an accuracy of +/-0.05-ft.
  - Horizontal data accurate to within +/-0.2-ft.
- Fiberglass composite markers, or equal, will be required to be installed at the right of way limits at the beginning and ending of proposed abandon facility and placed at intervals no to exceed 500 ft. in between. Markers shall be a minimum of 62” in length and 3.75” in width or diameter. Warning label shall state the following: Warning, Buried Asbestos line, Call Before you Dig logo, Owner Telephone Number(s), Owner Name, and appropriate horizontal offset distance to the abandoned facility noted.
- When determined by the engineer that flexible markers at the right of way line is undesirable for the area, warning buttons, 3” minimum diameter, with the same information may be permanently affixed on the sidewalk, curb, or at a location directed by the engineer.

### **6.1.3.5 Service Lines and Utility Appurtenances**

Whenever required to accommodate construction, operation, maintenance and/or use of the Project, the DB Team shall cause service line adjustments and utility appurtenance adjustments. On completion of these, the DB Team shall cause full reinstatement of the roadway, including, but not limited to reconstruction of curb, gutter, sidewalks, and landscaping, whether the Utility Adjustment Work is performed by the Utility Owner or by the DB Team.

### **6.1.3.6 Early Adjustments**

Refer to Volume 2

### **6.1.4 Recordkeeping**

The DB Team shall maintain construction and inspection records in order to ascertain that Utility Adjustment Work is accomplished in accordance with the terms and in the manner proposed on the approved Utility Work Plan(s) and otherwise as required by the Design-Build Agreement and the applicable Utility Agreement(s).

## **6.2 Administrative Requirements**

### **6.2.1 Standards**

All Utility Adjustment Work shall comply with all applicable Laws, the Technical Provisions, and *GDOT's Utility Accommodation Policy and Standards Manual*.

### **6.2.2 Communications**

#### **6.2.2.1 Communication with Utility Owners: Meetings and Correspondence**

The DB Team is responsible for holding meetings and otherwise communicating with each Utility Owner, Utility Owner pre-approved design consultant and construction contractor as necessary to timely accomplish the Utility Adjustments in compliance with the DB Documents. GDOT may participate in these meetings if requested by the Utility Owner or the DB Team or otherwise as GDOT deems appropriate.

At least seven (7) Days in advance of each scheduled meeting, the DB Team shall provide notice and an agenda for the meeting separately to GDOT and the appropriate Utility Owner. The DB Team shall prepare and distribute minutes of all meetings within seven (7) Days of the meeting with Utility Owners and shall keep copies of all correspondence between the DB Team and any Utility Owner.

The DB Team will be allowed to coordinate with Utility Companies for early coordination of Utility Adjustments.

### **6.2.3 Worksite Utility Coordination Supervisor**

During the construction of the Project, the DB Team shall designate, prior to beginning any work, a Worksite Utility Coordination Supervisor (WUCS) who shall be responsible for initiating and conducting utility coordination meetings and accurately recording and reporting the progress of utility relocations and adjustment work. The WUCS shall be the primary point of contact between all of the Utility companies, the DB Team and the Department. The WUCS shall recommend the rate of reoccurrence for utility coordination meetings and GDOT will have the final decision on the regularity for utility coordination meetings. In no case will utility coordination meetings occur less than monthly until controlling items of utility relocations and adjustment milestones are completed. The WUCS shall contact each of the utility companies for the purpose of obtaining information including, but not limited to, a Utility Adjustment Schedule for the controlling items of utility relocations and adjustments. The WUCS shall notify the appropriate utility company and/or utility subcontractor and the Department of the status of controlling items of relocations and adjustment milestones as they are completed. The WUCS shall furnish GDOT, for acceptance, a Progress Schedule Chart, prior to beginning Construction unless otherwise specified, which includes the utility companies controlling items of work and other information in accordance with the Contract documents. Duties and Responsibility of the Worksite Utility Coordination Supervisor, (WUCS):

- **Qualifications:** The WUCS shall be an employee of the Prime DB Team, shall have at least one year experience directly related to highway and utility construction in a supervisory capacity and have a complete understanding of the Georgia Utilities Protection Center operations, and shall be knowledgeable of the High-voltage Safety Act and shall be trained on the Georgia Utility Facility Protection Act (GUFPA). The Department does not provide any training on GUFPA but will maintain a list of the Georgia Public Service Commission certified training programs developed by other agencies. Currently the following companies offer approved GUFPA training programs:

Georgia Utility Contractors Association  
Phone: 404.362.9995

Georgia 811  
Phone: 404.375.6209

H B Next  
Phone: 706.619.1669 or 877.442.4282 (Toll Free)

daBaires Group

Phone: 678.643.8278 or 678.237.8192

Georgia Utility Training Academy  
Phone: 678.635.8980

The Prime DB Team is responsible for obtaining the GUFPA training for their employees.

Questions concerning the Georgia Public Service Commission GUFPA training program shall be directed to:

Georgia Public Service Commission  
244 Washington St. SW  
Atlanta, GA 30334-5701  
404.463.6065

### **Ticket Status**

During the utility coordination meetings, the WUCS shall collect and maintain the ticket status information to determine the status of all locate requests within the Project limits. This information will be used to assure those planning to use mechanized equipment to excavate or to work within the Project limits are prepared to begin work when they have reported or estimated beginning work. At points where the DB Team's or utility company's operations are adjacent to or conflict with overhead or underground utility facilities, or are adjacent to other property, damage to which might result in considerable expense, loss, or inconvenience, work shall not commence until all arrangements necessary for the protection thereof have been made.

### **Notice**

The names of known utility companies and the location of known utility facilities will be shown on the Plans, or listed in the Overhead/Subsurface Utility Engineering Investigation if performed, or in the Special Provisions; and the WUCS shall give 24-hour notice to such utility companies before commencing work adjacent to said utility facilities which may result in damage thereto. The WUCS shall further notify utility companies of any changes in the DB Team's work schedules affecting required action by the utility company to protect or adjust their facilities. Furthermore, this 24-hour notice shall not satisfy or fulfill the requirements of the DB Team as stated in Chapter 9 of Title 25 of the Official Code of Georgia Annotated, known as the "Georgia Utility Facility Protection Act".

### **Agenda**

The WUCS shall cooperate with the companies of any underground or overhead utility facilities in their removal and relocations or adjustment work in order that these operations may progress in a reasonable manner, that duplication of their removal and relocations or adjustment work may be reduced to a minimum, and services rendered by those parties will not be unnecessarily interrupted. To promote this effort the WUCS shall prepare an agenda for the utility coordination meetings and circulate same 7

business days in advance of the meeting to encourage input and participation from all of the utility companies. The agenda will be prepared by an examination of the Project site and may include photographs of potential/actual utility conflicts.

### **Submission**

Provisions for reporting all utility coordination meetings, the progress of utility relocation and adjustment work milestones and ticket status information shall be reported on a form developed by the WUCS and will be distributed by the WUCS to all of the utility companies as milestones are met and shall be included as part of the Project records. These reports shall be delivered to GDOT for review, on a monthly basis. The WUCS shall immediately report to GDOT any delay between the utility relocation and adjustment work, the existing Utility Adjustment Schedule, or the proposed Utility Adjustment Schedule so that these differences can be reconciled.

The DB Team will be required to utilize prequalified utility consultants and contractors.

### **6.2.4 Real Property Matters**

The DB Team shall provide the services described below in connection with existing and future occupancy of property by Utilities.

**Determination of Utility Right-of-Way and Easement** – The determination as to the need for replacement right-of-way or easement for utilities will be made as follows:

- a. The Department will determine what right-of-way is required for construction of the highway project and will normally provide adequate right-of-way for the existing or typical utility facilities that will be permitted to be accommodated within that right-of-way. The DB Team will coordinate with each Utility to request any special right-of-way requirements necessary for their facilities.
- b. If there is not sufficient space for the utility within the right-of-way or easement which will be required for the construction of the project, the DB Team will coordinate with the Utility to verify such circumstance and will obtain a written statement as to whether the Utility desires that the DB Team acquire such additional rights-of-way or easement as may be required for utility relocation under the provisions of the O.C.G.A. § 32-6-172. If the Utility insists on acquiring its own right-of-way or easement, the Utility shall notify the DB Team in writing of such and shall include this acquisition in the Work Plan. Additionally, if the Utility intends to acquire its own right-of-way or easement, it shall be the DB Teams and District Utilities Engineer's responsibility to ensure that the Department's monthly Right-of-Way Status Acquisition Reports be forwarded to such Utility as received from the State Right-of-Way Office. These reports are critical to ensure that the Utility can begin acquiring their required right-of-way or easement soon after the DB Team has completed its negotiations with each affected property owner. In either case, the following method of acquisition described in Section 4.1.C.6 of the UAM shall apply.

**Method of Acquisition** - It is desirable that replacement right-of-way and easements for utilities be acquired concurrently with acquisition of right-of-way for the highway project.

### **Adjustment on Projects**

- a. **Reimbursable Cases** - When the Utility is entitled to reimbursement for the cost of acquisition of replacement right-of-way or easements, the Department will request permission from the Utility, which must be obtained in writing, to acquire necessary utility right-of-way or easements concurrently with its acquisition of the normal highway right-of-way. If the Utility has some particular reason for insisting on acquiring the right-of-way or easement, this will be included in a Utility Agreement.
- b. **Non-Reimbursable Cases** - If the cost of acquisition of replacement right-of-way or easement is not reimbursable, the Department will, at the written request of the Utility, acquire such right-of-way or easement under written agreement and the Utility will reimburse the Department for such cost in accordance with the State law. Any acquisition by the Department will comply with all requirements pertaining to the Department's acquisition of its own right-of-way or easement.

**Interest to be Acquired** - If the Utility agrees for the DB Team to acquire replacement right-of-way, or easement, the DB Team in conjunction with the Department's Office of Right-of-Way will determine what interest will be acquired and the instrument (i.e., quitclaim, easement limited agreement, etc.) to be used to transfer such interest from the Department to the Utility. The State Right-of-Way Engineer will notify the DB Team, District Utility Engineer and the State Utilities Office as to a determination regarding the Department's agreement to acquire the right-of-way and of what interest is proposed to acquire. The DB Team, in turn, will notify the Utility and District Utility Engineer of that determination and will promptly notify the State Right-of-Way Office, with a copy to the State Utilities Engineer, of any exceptions the Utility may make to that determination. The State Utilities Engineer will be responsible for the establishment of Easement Limited Agreements (ELA) with the Utility after determination by the State Right-of-Way Engineer that such ELA is required to complete the rights of way acquisition. A copy of the ELA will be sent to the State Right-of-Way Office for legal recording.

#### **6.2.4.1 Documentation of Existing Utility Property Interests – Affidavits**

For each Existing Utility Property Interest within the Existing ROW and Proposed ROW claimed by any Utility Owner, the DB Team shall include an easement deed or an Affidavit of Property Interest in the applicable Utility Work Plan, with appropriate documentation of the Existing Utility Property Interest attached. Any such claim shall be subject to GDOT's acceptance as part of a Utility Work Plan review. Except as

otherwise directed by GDOT, the DB Team shall prepare all Affidavits of Property Interest using the standard GDOT form.

#### **6.2.4.2 Acquisition of Replacement Utility Property Interests**

Each Utility Owner will be responsible for acquiring any Replacement Utility Property Interests that are necessary for its Utility Adjustments. DB Team shall have the following responsibilities for each acquisition:

- The DB Team shall coordinate with, and provide the necessary information to, each Utility Owner as necessary for the Utility Owner to acquire any Replacement Utility Property Interests required for its Utility Adjustments.
- If any of the DB Team-Related Entities assists a Utility Owner in acquiring a Replacement Utility Property Interest, such assistance shall be by separate contract outside of the Work, and the DB Team shall ensure that the following requirements are met:
  - The files and records must be kept separate and apart from all acquisition files and records for the Proposed ROW and Additional Properties.
  - The items used in acquisition of Replacement Utility Property Interests (e.g., appraisals, written evaluations and owner contact reports) must be separate from the purchase of the Proposed ROW and Additional Properties.
  - Any DB Team Related Entity personnel negotiating the acquisition of Replacement Utility Property Interests must be different from those negotiating the acquisition of Project ROW.

The DB Team is not responsible for Utility Owner condemnation proceedings.

#### **6.2.4.3 Georgia Utility Permitting System (GUPS)**

The DB Team and Utility Owners shall cooperate and coordinate for timely submittal of utility permit requests through GUPS to accommodate the following:

- Each Utility proposed to be relocated within the Existing ROW, Proposed ROW and Additional Properties.
- Each Utility proposed to remain in its existing location within the Existing ROW, Proposed ROW and Additional Properties.

Upon receipt of all required information from the DB Team, the Utility Owner shall be responsible to submit utility permit requests through GUPS.

#### **6.2.4.4 Documentation Requirements**

The DB Team shall prepare, negotiate (to the extent permitted by this Section 6.2.4 (Real Property Matters)), and obtain execution by the Utility Owner of (and record in the appropriate jurisdiction, if applicable) all agreements and deeds described in this Section 6.2.4, including all necessary exhibits and information concerning the Project

(e.g., reports, Plans, and surveys). Each agreement or deed shall identify the subject Utility(ies) by the applicable Utility Permit Number, and shall also identify any real property interests by parcel number or highway station number, or by other identification acceptable to GDOT.

## **6.3 Design**

### **6.3.1 DB Team’s Responsibility for Utility Identification**

The DB Team bears sole responsibility for ascertaining, at its own expense, all pertinent details of Utilities located within the Existing ROW, Proposed ROW, limits of Additional Properties or otherwise affected by the Facility, whether located on private property or within an existing public ROW, and including all Service Lines.

The DB Team may utilize Subsurface Utility Engineering (S.U.E) process for locating all existing utilities within the Project limits to develop the Utility Work Plan.

GDOT will not participate in any of the Preliminary Engineering (PE) costs for the Utility Adjustments.

The DB Team will coordinate reviews of the utility relocation information and obtain acceptance from the Utility Owner and GDOT. The GDOT District Utility Engineer should be kept informed if preliminary plans indicate that no conflict exists, and if the owner concurs with this information, then the owner shall provide a letter of “no conflict” to the DB Team.

### **6.3.2 Technical Criteria and Performance Standards**

All Design Documents for Utility Adjustment Work, whether furnished by the DB Team or by the Utility Owner or pre-approved design consultant, shall be consistent and compatible with the following:

- The applicable requirements of the DB Documents, including Section 6.2.1 (Standards)
- Any Utilities remaining in, or being installed in, the same vicinity
- All applicable Governmental Approvals
- Private approvals of any third parties necessary for such work

The DB Team shall ensure that the Design Documents are complete and include all utility adjustment schedules/utility work plans, utility relocation plans, and associated agreements necessary to address all foreseeable utility impacts that might affect the project. This includes utility issues affecting right-of-way acquisition, environmental clearances, project staging, and project constructability.

The Department has executed and provided a Memorandum of Understanding (MOU) between the Department and each Utility Owner. If a utility is impacted by the project and the impact requires a relocation of the utility, refer to the executed MOU for the party responsible for the cost of the relocations.

The DB Team shall endeavor to design the Project to avoid conflicts with utilities when feasible, and minimize impacts where conflicts cannot be avoided. The DB Team shall submit to the Department a SUE Utility Impact Analysis (UIA) in the Department's prescribed format as specified in Volume 2 Table 23-1.

When a utility owner claims prior rights in the MOU and does not include either design or construction in the Design-Build Agreement, the DB Team shall research and verify any compensable prior right claimed in the MOU that would result in reimbursement to the utility owner for any relocation design, construction or material cost. If there is a dispute over property interests with a Utility Owner, the DB Team shall be responsible for resolving the dispute. The DB Team shall meet with the Department's District Utilities Engineer (or designee) and ITS Manager to present the property interests information gathered. This information must be sufficient for the District Utilities Engineer (or designee) to certify the extent of the Utility Owner's property interests. The Department shall have final approval authority as to the DB Team's determination of whether the Utility Owner has property interests. The DB Team will be responsible for all Design, Construction and Material costs when the design and construction are included in the Design-Build Agreement.

### **6.3.3 Memorandum of Understanding (MOU)**

Depending on the provisions stipulated in the Memorandum of Understanding (MOU – See Attached) between the Department and each Utility Owner the DB Team shall be responsible for one of the following Design Activities:

- The DB Team shall be responsible for coordinating the design work of its subcontractors, Utility Owners and/or Utility Owners pre-approved contractors. The resolution of any conflicts between Utilities and the construction of the Project shall be the responsibility of the DB Team. No additional compensation will be allowed for any delays, inconveniences, or damage sustained by the DB Team or its subcontractors due to interference from utilities or the operation of relocating utilities.
- The DB Team shall be responsible for designing all or part of the utility removal, relocation, and adjustments required to accommodate the proposed Project. This shall include any required inspection, permitting, testing and monitoring to ensure that the work is properly performed to the certified design package. The resolution of any conflicts between Utilities and the construction of the Project shall be the responsibility of the DB Team. No additional compensation will be allowed for any delays, inconveniences, or damage sustained by the DB Team or its subcontractors due to interference from utilities or the operation of relocating utilities.

The DB Team shall provide each Utility Owner with design plans and Preliminary Utility Plans as soon as the plans have reached a level of completeness adequate to allow them to fully understand the Project impacts. The Utility Owner or Utility Owner's pre-approved design consultant will use the DB Team's design plan for preparing Utility

Relocation Plans, cost estimates, and respective Utility Adjustment Schedules (UAS). If a party other than the Utility Owner prepares Utility Relocation Plans, there shall be a concurrence box on the plans where the Utility Owner signs and accepts the Utility Relocation Plans as shown.

The DB Team shall prepare all engineering design, plans, technical specifications, cost estimates, and utility adjustment schedules required to perform the necessary utility relocations. The DB Team shall certify to the Department that the design package listed above has been reviewed and accepted by each respective Utility Owner.

The DB Team shall be responsible for collecting the following from each Utility Owner or Utility Owner's pre-approved design consultants that is located within the Project limits: Certified Utility Relocation Plans; Utility Agreements if required, cost estimates and Letters of "no conflict" where the Utility Owner's facilities will not be impacted by the Project. The DB Team shall assist Utility Owners in the preparation and submittal to the Department a Utility Retention Request for any utility which is to remain under the roadway within the construction limits.

The DB Team shall review all Utility Relocation Plans and Utility Agreements, Utility Estimates and certificates of eligibility to ensure that relocations comply with the Departments "Utility Accommodation Policy and Standards Manual". The DB Team shall review the utility plans to identify that there are no conflicts with the proposed highway improvements, and ensure that there are no conflicts between each of the Utility Owner's relocation plans. The DB Team shall show all existing and proposed utilities on the cross sections and drainage profiles.

### **6.3.4 Utility Work Plans**

The DB Team shall submit Utility Work Plans after the DB Team has reviewed and addressed internal comments on the Utility Adjustment Preliminary Plan. Utility Work Plans, whether furnished by the DB Team, Utility Owner, or Utility Owner pre-approved design consultants. The Utility Work Plans shall be signed and sealed by a Registered Professional Engineer (PE) in the State of Georgia.

#### **6.3.4.1 Plans Prepared by the DB Team**

Where the DB Team and the Utility Owner have agreed that the DB Team will furnish a Utility Adjustment design, the DB Team shall prepare and obtain the Utility Owner's approval of plans, specifications, and cost estimates for the Utility Adjustments (collectively, "Utility Work Plans") by having an authorized representative of the Utility Owner sign the plans as "reviewed and approved for construction." The Utility Work Plan (as approved by the Utility Owner) shall be attached to the applicable Utility Agreement (if required), for GDOT's acceptance.

Unless otherwise specified in the applicable Utility Agreement(s), all changes to Utility Work Plan(s) previously approved by the Utility Owner (excluding estimates, if the Utility Owner is not responsible for any costs) shall require written Utility Owner approval. The

DB Team shall transmit any GDOT comments to the Utility Owner, and shall coordinate any modification, re-approval by the Utility Owner and re-submittal to GDOT as necessary to obtain GDOT's acceptance.

#### **6.3.4.2 Plans Prepared by the Utility Owner**

For all Utility Adjustments to be furnished by a Utility Owner, the DB Team shall coordinate with the Utility Owner as necessary to confirm compliance with the applicable requirements. Those Utility Adjustments shall be attached to the applicable Utility Agreement, which the DB Team shall include in the appropriate Utility Work Plan for GDOT's acceptance. The DB Team shall transmit any GDOT comments to the Utility Owner, and shall coordinate any modification, review by the DB Team and re-submittal to GDOT as necessary to obtain GDOT's acceptance.

#### **6.3.4.3 Design Documents**

Each proposed Utility Adjustment shall be shown in the Design Documents, regardless of whether the Utility Work Plan is prepared by the DB Team, Utility Owner or Utility Owner's pre-approved design consultant.

### **Required Information**

#### **a. Preliminary Utility Plans**

- 1) Preliminary Utility Plan sheets are typically comprised of preliminary roadway plan sheets with the inclusion of all existing utility facility locations (overhead & underground) found within a Project's limits. The "degree of effort" exerted on the part of the Department and the Utility Owner varies with the type and location of the utility. The Department has classified these "degrees of effort" into different Quality Levels of information
- 2) Preliminary Utility Plans shall be produced and used by the DB Team in the utility coordination/relocation design activities outlined here. The following minimum information shall be shown on the Preliminary Utility Plans:
  - (a) Construction centerlines with Project stations and begin/end Project limits.
  - (b) Curb and gutter or edge of pavement (proposed and existing)
  - (c) Road and street names
  - (d) Existing and Required Right of Way limits, property lines, environmentally sensitive area limits, and property owners
  - (e) All proposed and existing easements (including existing utility easements)
  - (f) Proposed and existing drainage structures/features (excluding drainage text)

- (g) Proposed construction limits (C/F lines)
  - (h) Topographical planimetrics (i.e. existing buildings/structures, existing tree/vegetation limits)
  - (i) All proposed bridges, walls, other structures and landscape hardscapes
  - (j) All proposed and existing strain poles (signal, sign, lighting)
  - (k) Utilities Legend
  - (l) Miscellaneous General Notes
  - (m) Existing overhead and underground utilities found within the Project's limits, including size and material if known
  - (n) Sanitary sewer manhole top, and invert elevations. Sanitary Sewer pipe flow directions
  - (o) Railroad mainline and spur tracks with their respective property/easement limits
  - (p) Project Survey control point locations
- b. Final Utility Plans
- 1) The Final Utility Plans shall clearly show all existing utilities on the plans and clearly indicate all existing utilities are "To Remain".
  - 2) In addition to the information required for the Preliminary Utility Plans, the Final Utility Plans shall include: Miscellaneous General Notes required for coordination of utility facilities with roadway construction.

## Sheet Layout

- a. The DB Team will ensure that any information and graphic data that is not necessary to depict the disposition of utilities found within the Project's limits is removed by turning off the appropriate CAD levels(s) on which the data is stored. This will help ensure that information pertinent to utility facilities can be clearly seen in the Utility Plan sheets. Examples of extraneous information would be items such as horizontal curve data, superelevation data, roadway dimensions, misc. text, etc. All background information such as pavement limits, existing structures, etc. shall be screened back. Also, the DB Team shall ensure all text, line work, details, and symbols are clear and legible when plans are reduced to ½ size (typically, 11"x17").
- b. In order to maintain plan clarity all applicable general notes, tables, and the Utility Legend shall be placed separately from the Utility Plan sheets. A Utility Plan "Cover Sheet" shall be provided for both preliminary and final Utility Plans. A recommended example utility sheet schedule is provided below:

- 1) Utility Sheet 1 (Cover Sheet) – Utility General Notes, Utility Legend, Miscellaneous Details
- 2) Utility Sheet 2 (required as needed) – Additional Miscellaneous Details, Pole Data Table
- 3) Utility Plan Sheets – Utilities shown in plan view with respect to Project.
- 4) Utility Profile and Cross Sections Sheets - Proposed Utility facility profiles and cross sections (as required)
- 5) Miscellaneous Utilities Sheets – Miscellaneous proposed utility details (as required).

The above sheet schedule shall also be generally followed for all separate utility relocation plans (i.e. water & sewer plans) included in the Project plans.

Note on the Utility Plans whose responsibility it is for utility adjustment. For bridge plans required, the DB Team is to make sure the plans have made accommodations for utility crossings and attachments, if applicable. Any new utility crossings requests shall include the size, weight, and type of utility. In addition, the method of attachment to the bridge shall be fully detailed. Such requests shall be reviewed by the DB Team to ensure adequacy and constructability and final acceptance shall be obtained by the DB Team from the Department. The DB Team shall follow the approval process within this specification. The DB Team is responsible to ensure that all proposed and existing utilities are coordinated with the respective Project's Construction Staging Plans and Erosion Control Plans.

Upon completion of the Utility Relocation Plans, the DB Team will ensure that any additional environmental impacts due to utilities are addressed in the Project's Environmental Document and/or Permit.

#### **6.3.4.4 Certain Requirements for Underground Utilities**

Casing as specified in GDOT's Utility Accommodation Policy and Standards Manual shall be used for all underground Utilities crossing the Existing ROW, Proposed ROW and/or Additional Properties.

Anytime underground operations, excavations or digging of any type is contemplated in the general area of the any utility facility, "Excavating" means any operation by which the level or grade of land is changed or earth, rock, or other material below existing grade is moved and includes, without limitation, grading, trenching, digging, ditching, auguring, scraping, directional boring, and pile driving. The Georgia Utility Facility Protection Act (GUFPA) mandates that, before starting any mechanized digging or excavation work, you must contact Georgia 811 at least 48 hours, but no more than 10 working days, in advance to have utility lines marked. Damage and Emergency locate request may be called in 24 hours a day, seven days a week. The DB Team shall take reasonable action to determine the location of any underground utility facilities in and near the area for which signs are to be placed. In addition to establishing the

approximate location of all utility facilities, the DB Team shall be required to fully expose the facility to verify its horizontal and vertical location, if underground operations are contemplated within the Tolerance Zone, which is defined to mean the approximate location of underground utility facilities defined as a strip of land at least 4 feet wide, but not wider than the width of the underground facility plus 2.0 feet on either side of the outside edge of such facility based upon the markings made by the locators. Excavation within the tolerance zone requires extra care and precaution. The DB Team shall avoid interference with underground utility facilities within the tolerance zone by utilizing such precautions that include, but are not limited to, hand excavation, vacuum excavation methods, and visually inspecting the excavation while in progress until clear of the existing marked facility. The DB Team shall provide, during and following excavation for placement of any signs, such support for existing underground utility facilities in and near the excavation as may be reasonably necessary for the protection of such facilities unless otherwise agreed to by GDOT and the Utility owner. The DB Team shall backfill all excavations in such manner and with such materials as may be reasonably necessary for the protection of existing underground utility facilities in and near the area of excavation or sign placement.

#### **6.3.4.5 Utility Work Plan**

Each Utility Adjustment (as well as each Utility remaining in place in the Facility ROW and not requiring any Protection in Place or other Utility Adjustment) shall be addressed in a Utility Work Plan prepared by the DB Team and submitted to GDOT for its review and acceptance. The Utility Work Plan is the combination of the Utility Plan and the Utility Adjustment Schedule. The DB Team shall provide Utility Work Plans for each individual Utility Owner and the Utility Work Plan shall be provided in accordance with the Utility Accommodations Policy and Standards Manual. The DB Team shall coordinate with the Utility Owner or Utility Owner's pre-approved design consultant to prepare all components of each Utility Work Plan. Completion of the review and comment process for the applicable Utility Work Plan, as well as issuance of any required GDOT acceptances, shall be required before the start of construction for the affected Utility Adjustment Work.

Provisions governing the procedure for and timing of Utility Work Plan submittals are in Section 6.5

All Utility Adjustments covered by the same initial Utility Agreement shall be addressed in a single full Utility Work Plan.

Utility Work Plan Retention Requests: The DB Team shall assist utility owners in the preparation of Utility Work Plan Retention Request for each Utility proposed to remain at its original location within the Existing ROW, Proposed ROW and limits of Additional Properties that is not required to be addressed in a Utility Agreement or for a group of such Utilities. Each Utility Work Plan Retention Request shall contain a transmittal memo recommending that the subject Utility(ies) remain in place, a completed Utility Work Plan Checklist, a certification from the Utility Owner approving leaving the Utility(ies) in place, as well as a Georgia Utility Permit and Affidavit(s) of Property Interest, if applicable.

### **Utility Adjustment Schedule (UAS)**

The purpose of the UAS is to provide the DB Team with the pertinent information, including any utility staging required, dependent activities, or joint-use coordination that is required for the creation of a progress schedule chart that is feasible. Include the estimated duration for each of the applicable following tasks: Preliminary Engineering, Right-of-Way Acquisition, Construction Engineering, Material Procurement, Clearing and Trimming, Construction, Splicing or Tie-in work, Service Considerations and Temporary Works. A suitable UAS form is available from the Department for the WUCS to circulate to utility companies for any proposed Project construction staging. Ensure the WUCS submits the Progress Schedule Chart in accordance with the Contract and the proposed UAS from all utility companies to GDOT for review and approval.

### **Scheduling Utility Adjustment Work**

The DB Team is responsible for the scheduling of all utility relocations and adjustments. A written schedule should be provided by the utility owner or utility owner pre-approved contractor.

**Revised Work Plan Acceptance** - If previously unforeseen utility removal, relocation, or adjustment work is found necessary by the DB Team, the Utility or the DB Team after the start of construction of a project, the Utility shall provide a revised Work Plan within 30 calendar days after becoming aware of such work or upon receipt of the DB Team's written notification advising of such work. The incorporation of this revised Work Plan into the overall project schedule is not intended to correct errors and omissions with the original or current accepted Work Plans submitted to the Department. If such errors or omissions occur, it will be the Utility's responsibility to adhere to the original or current Work Plan submitted and approved. However, when it is deemed appropriate for a revised Work Plan to be submitted, the following procedure shall be followed for its acceptance: It is the responsibility of the DB Team to review all revised Work Plans submitted by the Utility found within a project's limits. After review and acceptance the revised Work Plan should be submitted to the District Utility Engineer for review and acceptance. Please note that the District Utilities Engineer will typically consult with the District Construction Office and GDOT Project Manager to determine the reasonability of such revised Work Plans. If, upon review, the District Utilities Engineer determines a revised Work Plan to be unreasonable based upon the required scope of utility adjustment and/or relocation required to accommodate a project, the District Utilities Engineer will initiate the escalation process to resolve such disputes involving the revised Work Plan whenever they may occur.

### **Post-Let Utility Certification**

Upon receipt of the accepted utility relocation plans and the Preliminary Utility Status Report, the DB Team will review and forward that information to the District Utility Engineer for review. The District Utility Engineer will review the information and forward to the State Pre-Construction Utility Engineer for final acceptance. The State Pre-

Construction Utility Engineer will perform the post-let utility certification and issue notice to proceed (NTP 3) released for construction.

## **6.4 Construction**

### **6.4.1 Reserved**

### **6.4.2 General Construction Criteria**

At the time the DB Team notifies the Department that the DB Team deems the Project to have reached Final Completion, the DB Team shall certify to the Department that all Utilities have been identified and that those Utility Owners with property interests or other claims related to relocation or coordination with the Project have been relocated or their claims otherwise satisfied or shall be satisfied by the DB Team.

In addition to the above, the DB Team shall comply with all provisions set forth under subsection 107.21 of the Georgia Department of Transportation's Specifications, Construction of Transportation Systems, current edition.

The DB Team shall be responsible for determining if the Department has agreed to a Project Framework Agreement (PFA) with Local Government or, additional Specific Activity Agreements (SAA) within the Project's limits (see the Department's Policies & Procedures (formerly known as TOPPS Policy #7120-3) for additional information). If the Department has approved a PFA or SAA; it is the DB Team's responsibility to assemble the necessary information including any Utility Agreements in a final and complete form and in such manner that the Department may accept the submittals with minimal review. Failure to submit such required Utility Agreements prior to the beginning of construction shall fully transfer the obligations, as stated in the subject PFA or SAA package, to the DB Team. Deductions to reimburse the Department for such obligations may be made from any current partial payment of the Lump Sum price.

All Utility Adjustment construction performed by the DB Team shall conform to the requirements listed below. If the Utility Owner chooses to perform their own relocations and the Utility Owner holds no property interest, the Utility Owner shall confirm in writing to the DB Team that the Utility Owner will relocate its own facilities at no cost to the DB Team. All construction engineering and contract supervision shall be the responsibility of the DB Team to ensure that all utility relocation work included in the contract is accomplished in accordance with the contract plans and specifications. The DB Team will consult with the Utility Owner before authorizing any changes which affect the Utility Owners facilities. For work included in the DB Teams contract, the Utility Owner or Utility Owner's consultant shall have the right to visit and inspect the work at any time and advise the DB Team and GDOT of any observed discrepancies or potential issues. The DB Team will notify the Utility Owner when all utility relocation work is completed and ready for final inspection. Upon final acceptance of the utility relocation included in the contract and upon certification by the Utility Owner that the work has been completed in accordance with the plans and specifications, the Utility Owner will accept the adjusted, relocated, and additional facilities. In addition, the DB Team is responsible for verifying that all Utility Adjustment construction performed by each Utility Owner

conforms to the requirements described below. In case of nonconformance, the DB Team shall cause the Utility Owner (and/or its Contractors, as applicable) to complete all necessary corrective work or to otherwise take such steps as are necessary to conform to these requirements:

- All criteria identified in Section 6.3.2.
- The Utility Work Plan(s) included in the Utility Agreements approved by GDOT (other than Utility Adjustment Field Modifications complying with Section 6.4.7.
- All Facility safety and environmental requirements
- Overall Facility schedule or proposed Facility ROW schedule described in Section 7.
- Ensure that the placed, abandoned, excavated or relocated within the Project limits are all locatable. Locatable shall mean that the line can be field located using SUE QL-B methodology.

Depending on the provisions stipulated in the Memorandum of Understanding (MOU – see attached) between the Department and each Utility Owner the DB Team shall be responsible for one of the following construction activities:

- The DB Team shall be responsible for coordinating the construction work of its subcontractors, Utility Owners and/or Utility Owners pre-approved contractors. The resolution of any conflicts between Utilities and the construction of the Project shall be the responsibility of the DB Team. No additional compensation will be allowed for any delays, inconveniences, or damage sustained by the DB Team or its subcontractors due to interference from utilities or the operation of relocating utilities.
- The DB Team shall be responsible for performing all or part of the utility removal, relocation, and adjustments required to accommodate the proposed Project. This shall include any required inspection, permitting, testing and monitoring to ensure that the work is properly performed to the certified design package. The resolution of any conflicts between Utilities and the construction of the Project shall be the responsibility of the DB Team. No additional compensation will be allowed for any delays, inconveniences, or damage sustained by the DB Team or its subcontractors due to interference from utilities or the operation of relocating utilities.

The DB Team shall be responsible for performing all utility removal, relocation, and adjustments required to accommodate the proposed Project in accordance with the MOU and any required utility agreements. This shall include any required inspection, permitting, testing and monitoring to ensure that the work is properly performed to the certified design package. The resolution of any conflicts between Utilities and the construction of the Project shall be the responsibility of the DB Team. No additional compensation will be allowed for any delays, inconveniences, or damage sustained by the DB Team or its subcontractor due to interference from utilities or the operation of relocating utilities.

### **6.4.3 Inspection of Utility Owner Construction**

The DB Team shall set forth procedures for inspection of all Utility Adjustment Work performed by Utility Owners (and/or their Contractors) to verify compliance with the applicable requirements described in Section 6.4.2 (General Construction Criteria).

### **6.4.4 Scheduling Utility Adjustment Work**

The Utility Adjustment Work (other than construction) may begin at any time following issuance of NTP 1. Refer to Section 7.6.2 of the Agreement for the conditions to commencement of Utility Adjustment Construction Work by the DB Team. The DB Team shall not arrange for any Utility Owner to begin any demolition, removal, or other construction Work for any Utility Adjustment until all of the following conditions are satisfied:

- The Utility Adjustment is covered by an executed Utility Agreement (and any conditions to commencement of such activities that are included in the Utility Agreement have been satisfied)
- Availability and access to affected Replacement Utility Property Interests have been obtained by the Utility Owner (and provided to the DB Team, if applicable)
- Proposed ROW and/or Additional Properties have been obtained in accordance with the applicable requirements of the DB Documents
- If applicable, the Alternate Procedure List has been approved by FHWA, and either (a) the affected Utility is on the approved Alternate Procedure List, as supplemented, or (b) the Utility Owner is on the approved Alternate Procedure List, as supplemented
- The review and comment process has been completed and required approvals have been obtained for the Utility Work Plan covering the Utility Adjustment.
- All Governmental Approvals necessary for the Utility Adjustment construction have been obtained, and any pre-construction requirements contained in those Governmental Approvals have been satisfied
- All other conditions to that Work stated in the DB Documents have been satisfied

### **6.4.5 Standard of Care Regarding Utilities**

The DB Team shall carefully and skillfully carry out all Work impacting Utilities and shall mark, support, secure, exercise care, and otherwise act to avoid damage to Utilities in accordance with O.C.G.A. 25-9 (The Georgia Utility Protection Act). At the completion of the Work, the condition of all Utilities shall be at least as safe and permanent as before.

### **6.4.6 Emergency Procedures**

Emergency Response Plan: The WUCS shall prepare and submit to the Department an Emergency Response Plan no later than 30 days prior to beginning construction. The WUCS shall clearly mark and highlight the gas, water and other pressurized pipeline shut-off valves and other utility services including overhead switch locations on

the utility plans; and prepare a chart to indicate the location of each site (Street address or intersections), the utility company or operator of the facility with emergency contact information and the working condition of the device to facilitate prompt shut-off. The WUCS shall post the Emergency Response Plan in an area readily accessible to the Department. In the event of interruption to gas, water or other utility services as a result of accidental breakage or as a result of being exposed or unsupported, the WUCS shall promptly notify the appropriate emergency officials, the Georgia Utilities Protection Center and the appropriate utility facility company or operator, if known. Until such time as the damage has been repaired, no person shall engage in excavating or blasting activities that may cause further damage to the utility facility.

#### **6.4.7 Switch Over to New Facilities**

After a newly Adjusted Utility has been accepted by the Utility Owner and is otherwise ready to be placed in service, the DB Team shall coordinate with the Utility Owner regarding the procedure and timing for placing the newly Adjusted Utility into service and terminating service at the Utility being replaced.

#### **6.4.8 Traffic Control**

The DB Team shall be responsible for, and the Construction Traffic Control Plan shall cover, all traffic control made necessary for Utility Adjustment Work, whether performed by the DB Team or by the Utility Owner. Traffic control for Adjustments shall be coordinated with GDOT. Traffic control shall comply with the guidelines of the Manual of Traffic Control Devices (MUTCD), current edition, and of Section 18.

### **6.5 Deliverables**

The DB Team shall time all Submittals described in this Section 6 to meet the Project Baseline Schedule, taking into account GDOT's applicable review and response times designated in this Section 6, or if not stated therein, then as stated in Article 6.3 of the Design-Build Agreement (Volume 1).

The DB Team will provide to GDOT concurrently with accepted construction as-built plans, one full sized, three half sized, one PDF and one MicroStation copy of the utility as-built plans for review. GDOT will have 30 days to review and return accepted or with comments. DB Team will address any comments and return to GDOT for final review and acceptance. Upon GDOT review and acceptance, the DB Team will provide a copy of the accepted final utility as-built plans to all utility owners who's utility relocation work was included in the contract.

#### **6.5.1 Utility Work Plan Submittals**

DB Team shall coordinate all Submittals required pursuant to this Section 6.5, so as not to overburden GDOT's staff and consultants.

(i) DB Team shall transmit any GDOT comments to the Utility Owner, and shall coordinate any modification, review and approval by the Utility Owner and re-submittal to GDOT, as necessary to resolve all GDOT comments and/or obtain GDOT's acceptance, as applicable. Upon (i) GDOT's acceptance of any Utility Work Plan components for which GDOT's acceptance is required, and (ii) completion of the review and comment process for all other Utility Work Plan components, GDOT will sign three originals of any approved Georgia Utility Permit and of any other components of the Utility Work Plan for which this Section 6 requires GDOT's signature.

#### **6.5.2 Preliminary Utility Status Report**

The DB Team shall prepare and submit to the Department a Preliminary Utility Status Report Concurrently with Accepted Relocated Utility Plans in accordance with Section 23. This report shall include a listing of all Utility Owners located within the Project limits and a recommendation as to the extent of each Utility Owner's property interests. This report shall include copies of easements, plans, or other supporting documentation that substantiates any property interests of the Utility Owners. The report shall a listing of each utility with contact information, agreements, current UIA and a preliminary assessment of the impact to each Utility Owner.

#### **6.5.3 Subsurface Utility Engineering (SUE) Requirements**

The DB Team shall compile, and submit to the Department all SUE deliverables, Utility Relocation Plans, SUE Utility Impact Analysis, Utility Adjustment Schedules, Utility Agreements, Utility Estimates (if estimates are provided by the utility owners), and Letters of "no conflict," as set forth above for the Project. The DB Team is expected to assemble the information included in the Utility Agreements and Utility Relocation Plans in a final and complete form and in such a manner that the Department may accept the submittals with minimal review. The Utility Owners shall not begin their Utility Relocation work until authorized in writing by the Department.

Each Utility Agreement and Utility Relocation Plan submitted shall be accompanied by a certification from the DB Team stating that the proposed relocation will not conflict with the proposed highway improvement and will not conflict with another Utility Owner's relocation plan.

#### **6.5.4 Utility As-Built Standard**

##### **6.5.4.1 General As-Built Utility Requirements**

The DB Team shall be responsible for managing, ensuring the accuracy of, and delivering all utility As-Built which must be provided after utility relocations are completed and prior to project closeout. The DB Team shall submit detailed As-Built utility information which will include all resulting abandoned or relocated utilities present within the Project limits. An "As-Built Drawing" will be submitted for each utility on the project, whether the utility work is included in the contract price, or the utility work is performed by the Utility Owner or the Utility's contractor.

The DB Team shall ensure the following:

All underground utilities that were relocated within the Project limits will be surveyed at the time of installation to determine the exact location and position of the utility line, including, but not limited to:

- a. The outside diameter of pipe or width of duct banks and configuration of non-encased multi-conduit systems
- b. The utility's structural material composition and condition
- c. Identification of benchmarks used to determine elevations
- d. Elevations with an accuracy of +/- 0.05-ft and certified accurate to the benchmark(s) used to determine elevations
- e. Horizontal data accurate to within +/- 0.2 ft or applicable survey standards, whichever is more precise
- f. Recording and labeling of the average depth below the surface of each run, all change of direction points, and all surface or underground components such as valves, manholes, drop inlets, clean outs, meters, etc.
  - i. For wet facilities – typically at 100' intervals
  - ii. For dry facilities – typically at 25'-50' intervals, depending on the vertical alignment

All resulting abandoned or excavated underground utilities within the Project limits shall be clearly delineated and labeled as “abandoned” or “removed”

All relocated aerial facilities shall be recorded to include, but not be limited to, the pole

- g. Owner
- h. Age
- i. Size
- j. Height
- k. Number
- l. Material type
- m. General condition of the utility
- n. Horizontal location surveyed to the same accuracies and precision as is required for the topographic data
- o. Aerial Utility Owners attached to the pole
- p. Horizontal connectivity of the utilities between the poles, including major service drops (substations or industrial facilities)

#### **6.5.4.2 As-Built Utility CADD Files and Plans Preparation**

The DB Team shall submit As-Built information in GDOT's current CADD format (Microstation and InRoads) and in pdf format in accordance with GDOT's current Electronic Data Guidelines (EDG) and Plan Presentation Guide (PPG).

The DB Team shall ensure the As-Built utility information is submitted as follows:

##### **CADD files**

1. All points/data shall be placed in one (1) CADD file per Utility Owner
2. DGN files shall be named 1234567UTLAB\_XYZ.dgn (where “1234567” represents the PI# and “XYZ” the Owner’s UPC code)
3. One (1) empty, overall 1234567UTLEAB.dgn shall be created with all individual 1234567UTLAB\_XYZ.dgn files attached as reference files
4. All UTLAB files shall follow the conventions set forth in the EDG for the UTLE file
5. Sheet files, using GDOT's title block, shall be created for each Utility Owner in accordance with Section 44 of the GDOT's PPG; levels shall be correctly turned on/off/grayed back to enable future printing if needed
6. The project’s scale shall be maintained
7. Relocated poles shall be numbered and matched to a pole data table
8. Pole data tables and point data tables shall be included
9. All street names shall be labeled
10. All easements and right-of-ways shall be labeled
11. The location and elevation of the referenced benchmark shall be identified and labeled; if the referenced benchmark is not within the Project limits, then a complete description of its location shall be provided to assist in future locating
12. Any changes in details of design and/or additional supporting information, such as approved placement details, pipe sizes, material changes, geo-coded photos, etc., shall be labeled

##### **PDF files**

1. PDFs of the CADD sheet files shall be created for each Utility Owner in accordance with Section 44 of the GDOT's PPG; levels shall be correctly turned on/off/grayed back to enable future printing
2. Include the name, address, and telephone number of the firm preparing the drawing in the title block
3. Include the date the As-Built data is collected in the revision block of the title block

4. Include the Surveyor's/Engineer's stamp and statement certifying that As-Built plans reflect the true conditions in the field
  - a. An electronic stamp may be used
  - b. Certification applies to new As-Built information (not to the existing utility information provided by GDOT)
5. Provide the Contractors' statement (with an original signature and Project Number on the cover sheet and transmittal letter) verifying that all construction specifications and product qualities have been met
6. Label "As-Built Drawing" on each sheet

#### **As-Built Utility Plans Review and Submittal Process**

1. The DB Team shall submit completed As-Built CADD files and pdfs of the As-Built utility plan sheets to the DB Team's Design Engineer for review and comment(s)
2. Each respective Utility Owner, whose work was included in the contract, shall receive a pdf copy of their As-Built for review and acceptance at the interval(s) specified in the project's contract; all comments shall be provided to the DB Team
3. The DB Team shall revise and make changes or adjustments to the As-Built utility related data, as necessary
4. As-Built shall not be considered complete until the DB Team has responded to all comments from these reviews to the satisfaction of the DB Team's Design Engineer and the Utility Owners
5. The DB Team shall submit final As-Built utility plans to GDOT as follows:
  - a. One (1) overall, final CADD file in the Department's current CADD Software with each Utility Owner's file appropriately attached as a reference file per GDOT's PPG and EDG
  - b. One (1) pdf set of Section 44 plans for each Utility Owner's facilities
6. Quality Assurance (QA) shall be performed by GDOT on all deliverables to determine compliance with GDOT's EDG and PPG before final acceptance by GDOT

## 7 RESERVED

## **8 GEOTECHNICAL**

### **8.1 General Requirements**

DB Team shall perform all geotechnical investigations, testing, research, and analysis necessary to effectively determine and understand the existing surface and subsurface geotechnical conditions of the Existing ROW, Required ROW or Additional Properties to be used by the DB Team to carry out the Work. DB Team shall ensure the geotechnical investigations and analyses are both thorough and complete, so as to provide accurate information for the design of roadways, pavements, foundations, structures, and other facilities that result in a Project that is safe, and meets operational standards. The DB Team shall design the Project in general conformance with GDOT policies, guidelines, and Volume 3 Manuals.

All geotechnical reports, provisions, and recommendations as developed by the DB Team and accepted and/or concurred by GDOT will be considered part of the Projects design and shall be endorsed by the EOR.

### **8.2 Design Requirements**

#### **8.2.1 Subsurface Geotechnical Investigation by DB Team**

DB Team shall determine the specific locations, frequency, and scope of all subsurface geotechnical investigations, testing, research, and any additional analysis the DB Team considers necessary to provide a safe and reliable roadway, pavement, foundation, structure, and other facilities for the Project.

DB Team shall prepare and amend, as needed, Geotechnical Engineering Reports documenting the assumptions, conditions, and results of the geotechnical investigation and analysis, including the following:

- The geology of the Project area, including soil and/or rock types, and drainage characteristics.
- Field investigations and laboratory test results used to characterize conditions, including moisture content, plasticity index, gradations for each major soil strata change, levels of shrink/swell potential soil compressibility, and short-term and long-term settlement/consolidation, strength tests and engineering properties.
- A discussion of conditions and results with reference to specific locations on the Project including dewatering plan and its impact on near-by structures.
- Design and construction parameters resulting from the geotechnical investigation and analysis, including parameters for the design of pavements, pipes, foundations, structures, slopes, and embankments.
- Plan view locations of field sampling, boring logs and other field data, laboratory test results, calculations, and analyses that support design decisions taking into consideration down-drag on piles and soil squeeze in high embankments.

- Include the slope stability analysis for embankment and excavation slopes including both short-term (undrained) and long-term (drained) conditions, and discussion of design measures undertaken to ensure stability and safety of all slopes. The analysis shall consider the potential for long-term surficial slide failures common to high plasticity clays in Georgia, and specific recommendations shall be provided to minimize their occurrence. Internal and external stability analysis shall be considered for walls supporting fill/cut within the Project.

Each Geotechnical Engineering Report along with back-up of calculations and input and output of GDOT recognized computer software, upon completion, shall be submitted to GDOT for review and comment as a Submittal.

If environmentally-sensitive conditions such as undocumented contaminated soil or archaeological sites are encountered during the subsurface exploration activities, DB Team shall notify GDOT immediately and for hazardous materials follow the requirements GDOT Standard Specification 107.22.

#### **8.2.1.1 Bridge Foundation Investigation (BFI)**

DB Team shall perform a BFI for all Projects that include bridge substructure Work in conformance with this section, GDOT Geotechnical manual, AASHTO guidelines, and Volume 3 Manuals. The BFI report and all recommendations shall be endorsed by the EOR.

##### **Pile foundation**

- Design and construct the pilings in accordance with all related special provisions per the approved Bridge Foundation Investigation recommendations.
- All piles shall be embedded a minimum of 10 feet into natural ground and 10 feet below 500 year scour line with additional length determined by the Geotechnical EOR.
- Piles located in 15 to 20-blow count soil shall be embedded a minimum of 15 feet in lieu of the 10 foot minimum above.
- When piles must penetrate into rock to provide the minimum embedment, use pilot holes drilled a minimum of 5 feet into the rock.

##### **Drilled Caisson**

- Design and construct the drilled caissons in accordance with Special Provision 524 per the approved Bridge Foundation Investigation recommendations.
- When sound rock is encountered drilled caissons shall be embedded a minimum of 10 feet from the top of rock or per the approved Bridge Foundation Investigation recommendations.

##### **Spread Footings**

- Top of footing shall be a minimum of 2 feet below the top of final grade.

- Spread footings shall not be used within Environmentally Sensitive Areas. Spread footings in stream buffers are allowed if no other less impactful options are available.
- Spread Footings should bear below the scour line.

### 8.2.2 Dynamic Pile Testing

The DB Team shall perform dynamic pile testing using the Pile Driving Analyzer (PDA) to monitor the driving of piles with accelerometer and strain gauges attached to the piles. The DB Team shall perform a minimum of 2 PDAs (one for the abutment and one for the intermediate bents), and additional PDAs will be required for a change in bent type, change in abutment, change in geotechnical material, or as determined by the EOR. Perform the dynamic pile testing in accordance with ASTM D4945-08 and Special Provision 523 per the approved Bridge Foundation Investigation recommendations..

Upon completion of a PDA test, provide a complete report consisting of but not limited to PDA field monitoring data, results of CAPWAP computer analyses, and the driving criteria recommendation from the geotechnical engineer who developed the BFI. The recommendation shall be endorsed by the EOR. Submit the report electronically in PDF format and the electronic data files of the PDA analysis and CAPWAP to the GDOT and allow seven (7) calendar days for review and acceptance before proceeding with driving production piles.

### 8.2.3 Pavement Design

DB Team shall construct and maintain roadway pavements in conformance to *GDOT's Pavement Design Manual* and GDOT policies and procedures. DB Team shall follow the required minimum pavement design provided in Volume 2, Section 11.

If Pavement Design has not been previously approved by GDOT, then the DB Team shall prepare a pavement design report that confirms or revises the required minimum pavement design provided in Volume 2, Section 11. The pavement design report shall document the assumptions, considerations, and decisions contributing to the Project's pavement design and meet all requirements of the *GDOT's Pavement Design Manual*..

For roadways adjacent to and crossing the Project that are disturbed by the construction activities of the Project, DB Team shall, at a minimum, match the in-place surface type and structure of the existing roadways. In addition, all new shoulders shall be constructed as full depth shoulders. DB Team shall design all tie-in Work to avoid differential settlement between the existing and new surfaces.

DB Team shall coordinate the design and construction of all cross roads with the Governmental Entity having jurisdiction whether a Municipality, County, or GDOT.

### **8.3 Construction**

Materials used to construct the Project shall meet the minimum requirement as specified in GDOT specifications, policies and procedures, guidelines, and Volume 3 Manuals. All materials used to construct the Project shall conform to the requirements of the GDOT Qualified Products List (QPL) or equivalent as approved by GDOT. Testing of materials shall be performed by personnel possessing the requisite GDOT materials certifications.

The DB Team shall be responsible for obtaining and complying with all Governmental Approvals for construction of the Project.

The DB Team shall submit to GDOT for review and acceptance any blasting plan(s). Blasting shall be performed in accordance with State Law, and in accordance with GDOT's specifications, policies and procedures.

### **8.4 Deliverables**

Deliverables shall include Geotechnical Engineering Reports along with all backup engineering calculations as described in Section 8.2.1, and pavement design reports as described in Section 8.2.2. All deliverables shall conform to the standards required in the Quality Management Plan including timely submittal of all documents.

All deliverables shall be presented to GDOT in both hard-copy, and electronic format compatible with GDOT software. All reports shall be signed and sealed by the EOR. Each report shall be accompanied by documentation that the report has completed all aspects of the Quality Management Plan including all reviews and acceptances.

## **9 SURVEYING AND MAPPING**

### **9.1 General Requirements**

The DB Team shall provide accurate and consistent land surveying and mapping necessary to support ROW acquisition, design, and construction of the Project. The DB Team is responsible for all surveying responsibilities in accordance with the *GDOT Automated Survey Manual*.

The DB Team shall review existing survey data and determine the requirements for updating or extending the existing survey and mapping data. The DB Team is responsible for the final precision, accuracy, and comprehensiveness of all survey and mapping.

The DB Team shall provide surveying and mapping activities in conformance with GDOT policies, guidelines, and Volume 3 Manuals.

### **9.2 Administrative Requirements**

#### **9.2.1 Property Owner Notification**

The DB Team shall prepare for GDOT review and acceptance a property owner notification letter in accordance with the *GDOT Automated Survey Manual* prior to entering any private property outside the Existing ROW.

### **9.3 Design Requirements**

#### **9.3.1 Units**

All survey Work shall be performed in U.S survey feet. Work shall conform to state plane coordinates.

The combined sea level and scale factor for the Project shall conform to the *GDOT Automated Survey Manual*.

#### **9.3.2 Survey Control Requirements**

The DB Team shall ensure that all surveying conforms to all applicable surveying laws and the *Georgia Professional Land Surveying Practices Act* and shall follow the *General Rules of Procedures and Practices* of the Georgia Board of Professional Engineers and Land Surveying. DB Team shall ensure that any person in charge of the survey is proficient in the technical aspects of surveying, and is a Registered Professional Land Surveyor licensed in the State of Georgia.

The DB Team shall establish all horizontal and vertical primary Project control from approved control provided by GDOT. If the DB Team chooses to use GPS methods,

the DB Team shall meet the guidelines as defined in the *GDOT Automated Survey Manual*.

The DB Team shall establish and maintain additional survey control as needed and final ROW monumentation throughout the duration of the Project.

The DB Team shall tie any additional horizontal and vertical control for the Project to the established primary Project control network.

All survey control points shall be set and/or verified by a Registered Professional Land Surveyor licensed in the State of Georgia.

The DB Team shall establish and maintain a permanent horizontal and vertical primary survey control network. The control network should consist of, at minimum, horizontal deltas coordinated and elevated set in intervisible pairs at spacing of no greater than three (3) miles. Control monuments set by the DB Team shall be installed per the National Geodetic Survey (NGS) guidelines (*National Geodetic Survey July 1996*). The horizontal deltas shall be installed per the *GDOT Automated Survey Manual*. Prior to construction, the DB Team in coordination with GDOT shall provide NOAA no less than a 90-day notification of planned activities that will disturb or destroy any geodetic control monuments. This will provide time to plan for and execute relocation of geodetic monuments. DB Team shall replace all existing horizontal and vertical primary survey control points disturbed or destroyed. DB Team shall make all survey computations and observations necessary to establish the exact position and elevation of all other control points based on the primary survey control.

The DB Team shall deliver to GDOT a survey control package in accordance with the *GDOT Automated Survey Manual*. In addition, DB Team shall deliver to GDOT a revised survey control package when survey monuments or control points are disturbed, destroyed or found to be in error.

### **9.3.3 Conventional Method (Horizontal & Vertical)**

If the DB Team chooses to use conventional methods to establish additional horizontal control, the DB Team shall meet the accuracy of the appropriate level of survey as defined in the *GDOT Automated Survey Manual*.

#### **9.3.3.1 Horizontal Accuracy Requirements for Conventional Surveys**

Horizontal control is to be established (at a minimum) on the Georgia State Plane Coordinate System of 1985[NAD83 or GCS 85].

Upon request by the DB Team, GDOT will compile and provide to DB Team a survey control package of existing GDOT approved survey monumented data in the Project vicinity.

### 9.3.3.2 Vertical Accuracy Requirements for Conventional Surveys

Vertical control shall be established on the North American Vertical Datum of 1988 (NAVD 1988).

**Table 9-1 North American Vertical Datum of 1988**

|   | 1 <sup>st</sup> Order  | 2 <sup>nd</sup> Order                                   | 3 <sup>rd</sup> Order                             | Remarks And Formulae   |
|---|--|---|---|--|
| Error of Closure                                      | 0.013 feet $\sqrt{M}$  | 0.026 feet $\sqrt{M}$                                   | 0.049 feet $\sqrt{M}$                             | Loop or between control monuments  |
| Maximum Length of Sight                               | 250 feet   | 300 feet  |   | With good atmospheric conditions   |
| Difference in Foresight and Backsight Distances       | ±10 feet   | ±20 feet  | ±30 feet  | Per instrument set up  |
| Total Difference in Foresight and Backsight Distances | ±20 feet per second  | ±50 feet per second                                     | ±70 feet per second                               | Per total section or loop  |
| Recommended Length of Section or Loop                 | 2.0 miles  | 3.0 miles   | 4.0 miles   | Maximum distance before closing or in loop                               |
| Maximum Recommended Distance Between Benchmarks       | 2000 feet  | 2500 feet   | 3000 feet   | Permanent or temporary benchmarks set or observed along the route        |
| Level Rod Reading                                     | ± 0.001 foot   | ± 0.001 foot  | ± 0.001 foot                                      |  |
| Recommended Instruments and Leveling Rods             | Automatic or tilting w/ parallel plate micrometer precise rods | Automatic or tilting w/ optical micrometer precise rods | Automatic or quality spirit standard, quality rod | When two or more level rods are used, they should be identically matched |

|                |  |  |   |  |
|----------------|--|--|---|--|
| Principal Uses | Broad area control, subsidence or motion studies jig & tool settings | Broad area control, engineering projects basis for subsequent level work | Small area control, drainage studies, some construction and engineering |  |
|----------------|--|--|---|--|

#### 9.3.4 Reserved

#### 9.3.5 Right of Way Surveys

The DB Team shall base all surveys on the primary horizontal and vertical control network established for the Project.

##### 9.3.5.1 Accuracy Standard

In performing ROW surveys consisting of boundary locations, the DB Team shall meet the accuracy standards of the appropriate level of survey as defined in the following table.

**Table 9-2: Chart of Tolerances**

|  | Urban / Rural           | Urban Business District  | Remarks and Formulae   |
|--|-------------------------|--------------------------|--|
| Error of Closure                                       | 1:10,000                | 1:15,000                 | Loop or between Control Monuments  |
| Angular Closure  | $15'' \sqrt{N}$         | $10'' \sqrt{N}$          | $N$ = Number of Angles in Traverse                                       |
| Accuracy of Bearing in Relation to Source *            | 20 "                    | 15 "                     | $\sin \alpha$ = denominator in error of closure divided into 1 (approx.) |
| Linear Distance Accuracy                               | 0.1 foot per 1,000 feet | 0.05 foot per 1,000 feet | $\sin \alpha \times 1000$ (approx.) where $\pm$ = Accuracy of Bearing    |
| Positional Error of any Monument                       | AC/10,000               | AC/15,000                | AC = length of any course in traverse                                    |
| Adjusted Mathematical Closure of Survey (No Less Than) | 1:50,000                | 1:50,000                 |  |

\* GDOT policy requires all bearings or angles be based on the following source: Grid bearing of the Georgia Coordinate System of 1985, with the proper zone and epoch specified.

### **9.3.6 Survey Records and Reports**

The DB Team may use electronic field books to collect and store raw data. The DB Team shall preserve original raw data and document any changes or corrections made to field data, such as station name, height of instrument, or target. The DB Team shall also preserve raw and corrected field data in hardcopy output forms in a similar manner to conventional field books for preservation.

Field survey data and sketches that cannot be efficiently recorded in the electronic field Volume shall be recorded in a field note Volume and stored with copies of the electronic data.

All field notes shall be recorded in permanently bound books. (Loose leaf field notes will not be allowed.) The DB Team shall deliver copies of any or all field note Volumes to GDOT upon request.

## **9.4 Construction Requirements**

### **9.4.1 Units**

Comply with the Design Requirements in Section 9.3.

### **9.4.2 Construction Surveys**

Comply with the Design Requirements in Section 9.3.

## **9.5 Deliverables**

### **9.5.1 Final ROW Surveying and Mapping**

The documents produced by the Surveyor, or the Surveyor's subcontractors, are the property of GDOT, and release of any such document shall be approved by GDOT.

All topographic mapping created by the DB Team shall be provided to GDOT in digital terrain model format using the software and version thereof being used by GDOT at the time of delivery.

### **9.5.2 ROW Monuments**

Upon completion of the ROW acquisition and all Construction Work, such that the Final ROW Lines will not be disturbed by construction, the DB Team shall set permanent and stable concrete ROW monuments (constructed according to current GDOT specifications) located on the final ROW line at all points of curvature (PCs), points of tangency (PTs), points of intersection (PIs), miters and breaks, points of compound curvature (PCCs), points of reverse curvature (PRCs), and all intersecting crossroad ROW lines. In addition, the DB Team shall set permanent and stable concrete ROW monuments (constructed according to current GDOT specifications) located on all final

ROW lines where the distance between such significant ROW line points exceeds fifteen hundred (1,500) feet.

The DB Team shall purchase all materials, supplies, and other items necessary for proper survey monumentation.

## 10 GRADING

### 10.1 General

DB Team shall conduct all Work necessary to meet the requirements of grading, including clearing and grubbing, excavation and embankment, removal of existing buildings, pavement and miscellaneous structures, subgrade preparation and stabilization, dust control, aggregate surfacing and earth shouldering, in accordance with Volume 3 Manuals (Technical Documents).

**Borrow, Stockpile, and Waste Sites:** All Borrow, Stockpile, and Waste Sites for this Project shall be environmentally approved prior to construction activities occurring in them. All common fill or excess material disposed of outside project right of way shall be placed in either a permitted solid waste facility, a permitted inert waste landfill, or in an engineered fill. See Section 201 of the Standard Specification and Supplements thereto for additional information.

There is no suitable place to bury existing bridge and/or construction debris within the project's limits. The DB Team shall provide an environmentally approved site to dispose the existing bridge and/or construction debris at no additional cost to GDOT.

Any features that are abandoned in place, e.g.; parking lots, abandoned pavements, sidewalks, driveways, catch basins, drop inlets, pipes, manholes, curbing, retaining walls, utilities, foundations, paved floors, underground tanks, fences, bridges, buildings, and other incidental structures shall be removed to the following depths:

**Abandoned Pavements:** Ensure existing pavement inside the Project Limits no longer being used is obliterated, graded to drain, and grassed.

**Abandoned Pipes:** Ensure abandoned pipes that are left in place are grout filled or filled with flowable fill.

**Under Pavements:** Remove to a depth of at least three (3) feet below the finished subgrade elevation.

**Underneath Other Structures:** Remove to at least three (3) feet below the foundations of any proposed structure, including installations such as guard rail posts and utility poles.

**Elsewhere in the Right of Way and easement areas:** Remove as follows: Remove to at least three (3) feet below the finished surface of slopes and shoulders and one (1) foot below natural ground outside construction lines.

Thoroughly crack or break abandoned structures that may impound water. These structures include but are not limited to concrete floors, basements, and catch basins within ten (10) feet of finished grade.

Break floors so that no section greater than ten (10) square feet remains intact.

## **10.2 Preparation within Project Limits**

DB Team shall develop, implement, and maintain, for the Term, a Demolition and Abandonment Plan for all existing structures, features, and utilities as described in Section 10.1 above (types and sizes) that will be removed, abandoned or partially abandoned during the Term. The plan shall ensure that said structures are structurally sound after the abandonment procedure. The plan should show the locations of all existing features as listed in Section 10.1 that will be abandoned and the plan should show sufficient detail for the abandonment.

GDOT reserves the right to require DB Team, at any time to salvage equipment and/or material in an undamaged condition and deliver to a location designated by GDOT within the GDOT District in which the Project is located, any GDOT-owned equipment and materials in an undamaged condition. GDOT shall have first right of refusal to retain any salvage material or equipment. If GDOT decides not to salvage the material or equipment the DB Team may take possession but not reuse for the Project. All material incorporated into the Project shall be new.

The material from structures designated for demolition shall be DB Team's property. All material removed shall be properly disposed of by DB Team outside the limits of the Project.

## **10.3 Slopes and Topsoil**

DB Team shall comply with Volume 3 Manuals regarding design limitations and roadside safety guidelines associated with the design of slopes along roadways. DB Team shall adjust grading to avoid and minimize disturbance to the identified waters of the U.S. DB Teams grading plan shall be in accordance with the approved Environmental Documents however the DB Team shall secure all associated Governmental Approvals to meet the Released for Construction (RFC) plans.

DB Team shall perform finished grading and place topsoil in all areas suitable for vegetative slope stabilization (and areas outside the limits of grading that are disturbed in the course of the Work) that are not paved.

DB Team shall clear the entirety of cut slopes within the available Right of Way. Debris shall be removed by the DB Team.

## **10.4 Deliverables**

### **10.4.1 Released for Construction Documents**

The Demolition and Abandonment plan shall be submitted to GDOT for acceptance no later than one hundred and eighty (180) Days from NTP 1 but must be completed prior to any Construction Phase as specified in Section 23.

## 11 ROADWAYS

### 11.1 General Requirements

The objectives of the Project include the provision of a safe, reliable, cost-effective, and aesthetically-pleasing corridor for the traveling public. The requirements contained in this Section 11 provide the framework for the design and construction of the roadway improvements to help attain the project objectives.

DB Team shall coordinate their roadway design, construction, maintenance, and operation with all other Work planned or under construction by GDOT and/or Governmental Entity.

Whenever DB Team receives a design request from an adjacent property owner, DB Team shall, within thirty (30) Days of the request, produce a report to GDOT identifying the nature of the request, the financial consequences to GDOT of compliance (if any), DB Team's assessment of the feasibility of compliance, any Change Requests from the Technical Provisions that would be required and any potential risks to GDOT that may arise from implementation of the design request such as environmental and permitting risks. Where DB Team determines that there are no financial consequences to GDOT, time impacts to the Project and Change Request from the Technical Provisions, and provided that GDOT raises no objection within thirty (30) Days of DB Team's report, DB Team may proceed with the implementation of the design request at its option and shall advise GDOT in writing of its decision.

No open cutting (removal of pavement to construct, repair, or relocate utilities/drainage structures or for any purposes that cause a full depth cut of existing pavement and removal of any subgrade beneath) of the Travel Lane pavements or ramp pavements shall be allowed without prior acceptance of GDOT. Any pavement that is open cut as described in this paragraph shall be repaired in kind prior to the Travel Lane or ramp being opened to traffic.

The stockpiling of materials may be permitted on a case by case basis provided that participation is based on the appropriate value of approved specification materials delivered by the DB Team to the project site, or other designated location in the vicinity of the project and the terms and conditions below. Stockpiled materials that may qualify for material allowances include materials that are not readily available, can be easily identified and secured for this project, and, can be stockpiled for long periods without detriment. The procedure identified in GDOT Supplement Specifications 109.07.B shall be used to process a Material Allowance Request. Other provisions include:

- Stockpiles shall be constructed in conformity with the provisions in the current GDOT Standard Specifications. Appropriate erosion control measures shall be placed and maintained, and the site shall be restored to its original condition. the DB Team will provide satisfactory evidence of insurance against loss by damage or disappearance,

- The stockpiled material is stored in such a manner that security and inventory can be maintained, and the contractor is responsible for any costs of storage of said materials.
- The material is supported by a paid invoice or receipt for delivery, with the DB Team to furnish the paid invoice within a reasonable time after receiving payment.
- The material conforms with the requirements of the plans and specifications,
- Any damage to material due to the delay in incorporation of the material into the Final Plans , shall be at the risk of the DB Team, and
- The quantity of material does not exceed the quantity required by the project, nor does the value exceed the appropriate portion of the contract item in which the material is to be incorporated.

## 11.2 Design Requirements

The design of the Project shall be in accordance with the Environmental Document approvals and Volume 3 Manuals (Technical Documents) and the DB Documents.

DB Team shall coordinate its roadway design with the design of all other components of the Project. The Project roadways shall be designed to integrate with streets and roadways that are adjacent or connecting to the Project.

The Project roadways shall be designed to incorporate roadway appurtenances, including, but not limited to fences, noise attenuators, barriers, and hazard protection as necessary to promote safety and to mitigate visual and noise impacts on neighboring properties. Fence type shall be replaced in accordance with GDOT Construction Standards and Details. Should the existing type of fence not match the type provided in the GDOT Construction Standards and Details, the type of proposed fence shall be accepted by GDOT.

The DB Team shall design and construct any and all proposed intersection reconstruction or rehabilitation to meet the requirements of the Environmental Document Approvals and Volume 3 Manuals (Technical Documents).

### Vibration Control

The DB Team is responsible for any and all vibration related damages to existing structures or other facilities located in the vicinity of construction related activities. Where vibration-inducing construction activities are to be performed in the vicinity of existing properties, structures, utilities, or other facilities, the DB Team shall evaluate potential impacts and develop a Vibration Control Plan for GDOT review and acceptance. The plan shall include certain triggers of action to ensure no damage to existing structures occurs as well as a means to resolve public concerns for the vibration at any level. Additional requirements for the Vibration Control Plan are as follows:

1. Use attenuation relationships published by applicable governmental agencies and/or applicable equipment manufacturers to estimate the zones within which vibrations caused by the Project may impact existing properties and facilities.
2. Within the zone of potential vibration impacts, conduct site reconnaissance of properties during site investigations to determine the sensitivity of each structure/facility to vibrations.
3. List all properties that may be adversely affected by vibrations.
4. Conduct a preconstruction survey of each structure determined to be susceptible to vibrations.
5. Provide the GDOT with recommendations to mitigate that may be adversely affected by vibrations.
6. Use the vibration monitoring records to develop attenuation curves for predicting vibrations at varying distances from the source.

The DB Team shall adjust operations immediately if the threshold readings above are exceeded.

### Blasting

Follow GDOT Standard Specification 107.12 and Supplemental Specifications 107.12 2016 Edition.

### Control of Access

DB Team shall maintain all existing property accesses, including those not shown on the schematic, and shall not revise control of access without GDOT review and the written agreement of the affected property owner. Access control shall be in conformance with the GDOT *Regulations for Driveway and Encroachment Control*.

## **11.2.1 Typical Section(s) and Pavement Design**

*Refer to volume 2.*

## **11.2.2 Additional Roadway Design Requirements**

DB Team shall coordinate, design and construct the improvements on crossing streets in accordance with the Governmental Entity having jurisdiction of said roadway. All roadside safety devices used on the Project shall meet current crash test and other safety requirements that meet or exceed current GDOT requirements. GDOT does not allow longitudinal pavement joints in the wheel path of the traveling public unless otherwise accepted by GDOT.

When designing and constructing hardscape elements at intersections, at a minimum, DB Team shall use colored textured concrete in all raised medians. Monolithic concrete medians will not be accepted. Stamped concrete may only be used where local communities agree to maintain them, and where it meets the requirements in GDOT specifications, policies, procedures and Volume 3 Manuals (Technical Documents).

Concrete paving shall be used in hard to reach mowing areas or under structures (such as, but not limited to, areas near or next to or between guard fence posts, sign posts, bent columns, next to retaining walls, freeway ramp gores, paved ditches, flumes, ditch inlets, etc.) to improve roadway appearance.

When guardrail is required on interstates, freeways, and other 4-lane roadways, shoulder paving shall be extended beyond the usable paved shoulder to conform to GDOT Standards and Details.

When construction impacts existing cable barrier that will remain in place, new end terminals shall be installed as required to ensure cable barrier remains in operation at all times. If existing cable barrier cannot remain in operation during construction, temporary concrete barrier shall be installed in the same general location as the existing cable barrier for the full length impacted, including approaches.

### **11.2.3 Allowable Design Exception(s)/Variance(s)**

*Refer to volume 2.*

### **11.2.4 Visual Quality**

When lighting is required, DB Team shall provide luminaries of equal height along the roadway.

### **11.2.5 Permanent Lighting**

The DB Team shall design the lighting of the Project in accordance with Volume 3 Manuals (Technical Provisions), the DB Documents, and at a minimum shall match the existing lighting illumination. The DB Team shall also make all necessary enhancements or changes to the existing lighting system to maintain the existing illumination if diminished by the Project.

DB Team shall install mechanical copper wire theft deterrent devices in all Project electrical conduits supplying power to the Project. The theft deterrent devices typically consist of a rubber stopper mechanical device that compress against the electrical wiring and prevents the wires from being easily pulled through the conduits. DB Team shall also install electrical pull box lids that contain locking mechanisms that works with the use of cams to prevent unauthorized access.

DB Team shall prepare lighting studies that consider illumination levels, uniformity, and sources for the roadways, interchanges, and special areas including local roadway intersections. DB Team shall maintain an average horizontal luminance on the roadways that provided consistent illumination.

All third-party requests for lighting within the Project Site shall be subject to GDOT acceptance.

DB Team shall provide an average to minimum uniformity ratio per AASHTO's *Standard Specifications for Structural Supports for Highway Signs, Luminaire, and Traffic Signals*, the Illuminating Engineering Society of North America (IESNA) RP-8-14 *Roadway Lighting Standard Practice for Roadway Lighting* and AASHTO's *Roadway Lighting Design Guide* for tolled lanes, general use lanes, High Occupancy Vehicle (HOV) lanes, auxiliary lanes, ramps, frontage roads, and ramp terminal intersections with cross streets.

DB Team shall design the lighting system to minimize or eliminate illumination of areas outside the Existing ROW. Luminaires shall be, at a minimum, high pressure sodium and be in accordance with GDOT guidelines. Neither mercury vapor nor metal halide is allowed. Other energy efficient lighting technology will be considered by GDOT with acceptance. Where LED or other energy efficient light fixtures are an efficient alternative, they should be used.

DB Team shall design and construct the lighting system in a manner that will reduce and/or discourage vandalism.

Luminaire poles and breakaway bases shall be designed in accordance with AASHTO's *Standard Specifications for Structural Supports for Highway Signs, Luminaire, and Traffic Signals*. The DB Team shall install breakaway wiring connectors when using luminaire poles and breakaway bases. For all poles located within the clear zone of the roadways, DB Team's design shall incorporate breakaway devices that are pre-qualified by GDOT. Appropriate safety measures shall be used if DB Team does not use luminaire poles and breakaway bases. Luminaire poles and breakaway bases shall not be used when mounted on side barriers, median barriers or bridge structures.

DB Team shall place all understructure lighting in a configuration that minimizes the need for lane closures during maintenance.

DB Team shall determine and design appropriate foundation types and lengths for permanent lighting structures. GDOT requires consistent footing designs and has a minimum footing size criteria as follows:

Table 11-1: Footing size criteria

| Height of Pole in feet  | Diameter by depth of footing in |
|---|---------------------------------|
| Less than or equal to 40'                                       | 2' by 6'                        |
| 40' to 50'  | 3' by 7'                        |
| 50' to 60'  | 3' by 9'                        |
| High Mast min - 100' or greater                                 | 4' by 20'                       |
| NOTE: Poles for barrier mounted have a minimum of 2' by 4' base |                                 |

DB Team shall not place ITS cable, fiber-optic lines, signal conductors, or any other non-lighting related cables or conductors in the lighting conduit, ground boxes, or junction boxes.

Top latch mechanisms shall be used on all high mast lighting towers.

DB Team shall minimize the potential hazards of lighting poles through the careful consideration of mounting options and pole placements, including the following options:

- Placing mast arms on traffic signal poles
- Placing pole bases on existing or proposed concrete traffic barrier
- Placing poles behind existing or proposed concrete traffic barrier, guardrail or cable barrier
- Placing high mast lighting outside the clear zone, especially in roadway horizontal curves

DB Team shall ensure that lighting structures comply with Federal Aviation Administration (FAA) height restrictions within five (5) miles airport facilities. In the event that proposed or existing luminaries, mast arms, or poles infringe into an airport's or heliport's base surface, DB Team shall coordinate with the FAA and GDOT to permit or relocate such structures. If FAA restrictions prohibit lighting structures from being placed in certain areas near an airport Project, DB Team shall find alternative ways of providing the required level of lighting.

DB Team shall coordinate with the Utility Owner(s) and ensure power service is initiated and maintained for permanent lighting systems. Where the Work impacts existing lighting, DB Team shall maintain the existing lighting as temporary lighting during construction and restore or replace prior to Substantial Completion.

DB Team shall place all bore pits safely away from traffic, provide positive barrier protection, and provide necessary signs to warn of the construction area.

DB Team shall contact Utility Owners regarding their specific required working clearance requirements.

DB Team shall ensure that roadway lighting is provided for the safety of vehicles and pedestrians as they approach local intersections.

DB Team shall affix an identification decal on each luminaire, ground box, and electrical service for inventory purposes and shall submit inventory information to GDOT in a GDOT-compatible format. This identification shall denote that these are property of GDOT and shall provide a contact phone number and address in the event of Emergency.

#### **11.2.6 Related Transportation Facilities**

DB Team shall design and construct all new roadway and bridges to accommodate the planned expansions or updates of Related Transportation Facilities as found in Volume 2.

### **11.3 Deliverables**

The DB Team shall provide the Submittals as required in Section 23 and in the DB Documents.

## 12 DRAINAGE

### 12.1 General Requirements

Effective performance of the Drainage System is an integral part of the success of the Project. All stormwater runoff that flows through the Project, whether originating within or outside the Project, must be accounted for in the design of the Drainage System. All existing and proposed riverine/tidal bridges, stormwater conveyances (open-channel and closed-conduit), inlets, and stormwater management such as detention/retention ponds are included as part of the Drainage System.

The design of the Project shall be in accordance with Volume 3 Manuals (Technical Documents) and the requirements of the DB Documents and Government Approvals.

The Drainage System shall meet the following requirements:

- The analysis, design, and construction of all components of the Drainage System shall address the interim conditions during construction of the Project and the Final Plans; and
- The System shall have adequate capacity to convey all stormwater through the Project without any adverse impacts to upstream and/or downstream adjacent properties.

### 12.2 Administrative Requirements

#### 12.2.1 Data Collection

The DB Team shall collect all necessary data, including those components outlined in this Section 12.2.1, to establish a Drainage System that complies with the requirements and accommodates the historical hydrologic flows within the Project limits.

The DB Team shall collect all available data identifying stormwater runoff obligations, including;

- Water quality regulations as imposed by local, State and federal governments;
- National Wetland Inventory and any other wetland/protected waters inventories;
- Any local floodplain ordinances in effective Federal Emergency Management Agency (FEMA) floodplains;
- Any restrictions on discharging storm water to environmentally sensitive areas, navigable waters or coastal zones; and
- Official documents concerning the Project, such as the Environmental Documents and any other drainage or environmental studies.

The DB Team shall determine any stormwater runoff issues that may include areas with historically inadequate drainage (evidence of flooding or citizen complaints of flooding), maintenance problems associated with drainage, and areas known to contain

Hazardous Materials. The DB Team shall identify watershed boundaries, protected waters, areas classified as wetlands, floodplains, and boundaries between regulatory agencies (e.g., watershed districts and watershed management organizations).

The DB Team shall acquire all applicable municipal drainage plans, watershed management plans, coastal zone management plans and records of citizen concerns. The DB Team shall acquire all pertinent existing storm drain plans, bridge hydraulic studies and/or survey data, including data for all culverts, drainage systems, storm sewer systems, and bridge sites within the Project limits. The DB Team shall also identify existing drainage areas and calculate the estimated runoff to the highway drainage system.

The DB Team shall obtain photogrammetric and/or geographic information system (GIS) data for the Project limits that depicts any impaired waters as listed by EPD. The DB Team shall conduct surveys for information not available from other sources.

If documentation is not available for certain components of the existing drainage system within the Project limits and these Components are scheduled to remain in place, The DB Team shall investigate and video record or photograph these components to determine condition, size, material, location, and other pertinent information.

The data collected shall be taken into account in the Final Plans of the drainage facilities.

### **12.2.2 Coordination with Other Agencies**

The DB Team shall coordinate all stormwater runoff issues with affected interested parties and regulatory agencies, including but not limited to EPD, USACE, and USFWS. The DB Team shall document any resolutions of stormwater runoff issues.

## **12.3 Design Requirements**

Within the Construction Maintenance Limits, the DB Team shall upgrade all substandard drainage facilities where the design and construction of the Project propose to utilize or impact those facilities. A substandard drainage facility is any stormwater drainage system component where the existing structural condition per Section 13 and/or hydraulic capacity per this Section 12 is inadequate to carry additional stormwater generated by the Project. The design of the Drainage System shall include reconfiguration of the existing drainage systems within the Project limits and design of new storm drainage systems as required per the performance requirements, defined in this Section 12.

Damage to existing infrastructure due to the DB Team's operation shall be immediately repaired to maintain existing system capacity at all times. This permanent repair shall be at the DB Team's expense.

The DB Team shall provide facilities compatible with the existing drainage system and all applicable municipal drainage plans or systems in adjacent properties. The DB Team shall preserve existing drainage patterns wherever possible.

The DB Team may utilize the existing drainage facilities, provided overall drainage requirements for the Project are achieved. Modifications of existing systems or installations of new drainage systems to create in-line/buried/subsurface/underground detention or stormwater runoff storage shall not be allowed. The use of blind junctions and/or non-accessible structures shall not be allowed unless otherwise approved in writing by GDOT. The DB Team shall not install and/or utilize longitudinal storm sewer pipe under travel lanes unless otherwise approved in writing by GDOT. If no modification or upgrading of the existing GDOT stormwater system is required, the DB Team shall at a minimum maintain the existing system. This maintenance includes but is not limited to silt removal from any pipe, ditch, or structure and removal of any debris prior to the use of any existing GDOT stormwater system. This maintenance shall be at the DB Team's expense.

The DB Team shall base its Final Plans on design computations and risk assessments for all aspects of Project drainage.

The DB Team shall design channels and ditches such that erosion within and downstream of the channels and ditches is minimized. Roadside and median channel design shall be based on the design storm events specified in GDOT's Manual on Drainage Design for Highways (Drainage Manual). The design high water elevation should be at least 6" below the roadway's normal shoulder break point. The travel lane should not be encroached upon during the 50 year design storm event. On depressed roadways/sections, at low points and sag locations/areas/points, all median drains should be designed for the 50 year design storm event such that the water will not reach the bottom of the pavement structure. All roadway, berm, surface, and outfall ditches should be designed such that the 25 year design storm event will not reach the bottom of the pavement structure. A 50 year design storm event should be used for ditches and channels at low points where flow must escape through an inlet. This requirement does not apply to roadways where water can escape over a curb, roadway, etc. into another channel. If these requirements are not achievable with a channel, the DB Team may design an open concrete-lined conveyance limiting ponding per Section 12.3.2.3, Gutter Spread/Ponding.

The DB Team shall coordinate with FEMA and/or the appropriate local community regarding any impacts to regulatory floodways and floodplains. In the event a Conditional Letter of Map Revision (CLOMR) is required, local community approval and the subsequent submission to FEMA shall occur as early in the Project timeline as possible. The DB Team shall allow up to one (1) year in the schedule for FEMA approval of any required CLOMR review.

The DB Team shall design the Project to follow FEMA regulations in FEMA regulated floodplains. This design may include but is not limited to bridge structures over streams,

bridge(s) or bottomless culverts over streams, increasing the tie slope and/or utilizing retaining walls to reduce fill in the floodplain/floodway.

All areas of the Project shall comply with the Post-Construction Stormwater Design Guidelines contained in the Drainage Manual.

Flood damage potential for the completed Project shall not exceed pre-Project conditions.

### **12.3.1 Surface Hydrology**

#### **12.3.1.1 Design Frequencies**

The DB Team shall use the Design Discharge Criteria in the Drainage Manual and comply with [Code of Federal Regulations \(CFR\) Part 650-Bridges, Structures, and Hydraulics](#).

If a design storm frequency is not specified for a given component of the temporary Drainage System, the DB Team shall use the design storm frequency for the corresponding Final Plans Facility.

#### **12.3.1.2 Hydrologic Analysis**

The DB Team shall design the drainage system to accommodate the Project drainage areas. These areas may extend outside of the Project limits.

The DB Team shall perform hydrologic analyses for the design of drainage features during the staging of construction and for the Final Plans for the Project according to the Drainage Manual.

### **12.3.2 Storm Sewer Systems**

Where precluded from handling runoff with open channels or ditches, the DB Team shall design enclosed storm sewer systems to collect and convey runoff to appropriate discharge points.

The DB Team shall prepare a storm sewer drainage report encompassing all storm sewer systems that contains, at a minimum, the following:

- Drainage area maps with each storm drain inlet and its pertinent data, such as delineated drainage area, topographic contours, runoff coefficients/design curve numbers, times of concentration, land uses, discharges, velocities and headwater elevations;
- Detailed tabulation of all existing and proposed storm drains. This includes but may not be limited to conveyance size and class or gauge; catch basin spacing/location and detailed structure designs;

- Specifications for the pipe bedding material and structural pipe backfill on all proposed pipes and pipe material alternates; and
- Storm drain profiles, including pipe size, length, type, height of fill, class/gauge, gradient and design hydraulic grade line (HGL); and numbered drainage structures with station offsets from the roadway alignment and elevations.

#### **12.3.2.1 Pipes**

Storm drains shall be designed with design flow velocities greater than or equal to three (3) feet per second (fps) or slopes greater than or equal to 0.0100 ft/ft to prevent sedimentation in the pipe. Storm drains shall be designed to prevent surcharging of the system at the flow rate for the design year event.

All storm drains shall be reinforced concrete unless accepted otherwise by GDOT prior to installation. The DB Team shall adhere to the approved Geotechnical Engineering Report and ensure appropriate materials are used pursuant to Section 8.

Minimum pipe inside diameter shall be eighteen (18) inches. GDOT acceptance shall be required for all existing pipes to be replaced with a diameter less than eighteen (18) inches.

Existing pipe systems not meeting GDOT's maximum structure spacing requirement that are not being impacted by the construction of the Project may remain. If an existing system is impacted it shall be upgraded to meet the requirements of this Section 12.

Some existing culverts and storm drains were designed with a "step down" structural capacity. This step down design for reduced structural capacity occurs in the dead load zone of the fill slopes. Where there is "step down", the section of culvert/storm drain within the dead load influence has less structural capacity than the section of culvert/storm drain within the live and dead load influences. For the Project, the DB Team shall design all stormwater conveyances to accommodate all live and dead loads from the existing and proposed roadway system.

#### **12.3.2.2 Municipal Separate Storm Sewer System**

The DB Team shall follow requirements in the Drainage Manual for compliance with GDOT's General NPDES Stormwater Permit No. GAR 041000 (MS4 Permit). The DB Team shall also be directly responsible for the minimum control measures within the MS4 Permit, as required in attachment MS4 Responsibilities for P.I. No. 110610 - I-85 Widening - Design-Build Project.

Thirty (30) Days prior to the end of each reporting period as required in the MS4 Permit, the DB Team shall provide to GDOT annual report data covering the portion of GDOT's MS4 within the Project limits. The DB Team shall submit to GDOT a signed and sealed Post-Construction Stormwater Report prepared per the Drainage Manual for review and approval. Upon GDOT approval the Report will be sent to EPD per the permit

requirements. EPD will have 60 days to disapprove the Report. GDOT will not issue substantial completion until after the 60 day EPD disapproval period ends. The DB Team may proceed with construction prior to the 60 days expiring at their own risk. GDOT will not issue reimbursement for any revisions to installed post construction BMPs as required by EPD.

The DB Team shall:

- 
- Attend GDOT training courses, Overview of Post-Construction Stormwater (O-PCS), CEI for Post-Construction BMPs (CEI), and Stormwater Pollution Prevention at Facilities (SWPP);
- Provide GIS data of the existing and proposed storm sewer systems and all ditches within the ROW. This GIS data shall comply with GDOT's Supplemental Specification 156 and MS4 policy guidance;
- Clean the existing drainage system sufficiently enough to allow for the proper detailed inspection of the system within the Project limits and as required in Section 19 for any proposed stormwater systems.

#### **12.3.2.3 Gutter Spread/Ponding**

The DB Team shall design pavement drainage systems, in both staging of construction and the proposed project, to limit ponding to the widths listed below for the design storm frequency:

- For all interstate highways and all roads other than interstates with design speeds of greater than 45 mph; ponding shall be confined within the shoulder. In no event shall any ponding occur in an interstate travel lane;
- For all roads other than interstates with design speeds of 45 mph or less, ponding shall be confined to within half ( $\frac{1}{2}$ ) the lane adjacent the gutter/shoulder and the gutter/shoulder; and
- For all bridge decks, ponding shall be limited according to Section 13.2.2 Design Spread and Frequency in the Drainage Manual.

Note: Bicycle lanes are considered part of the shoulder.

Concentrated stormwater shall not be allowed/released to flow across any travel lane within the Project. The term "shallow-concentrated" shall be synonymous with "concentrated" with respect to flows across travel lanes. Only sheet flow shall be allowed to flow across travel lanes.

#### **12.3.3 Hydraulic Structures (Culverts/Bridges)**

The DB Team shall analyze existing and proposed culverts and bridges impacted, replaced, or created by the Project design, for any flooding problems.

For all culverts, the DB Team shall determine the allowable headwater depth (HWd) for the design-year storm per the Drainage Manual and based on items such as potential damage or loss of use to adjacent property, the culvert, roadway, stream and/or floodplain, as well as traffic interruption or hazard to human life.

All hydraulic computations, designs, and recommendations shall be consistent with past studies and projects in the area performed by local, State, or federal agencies.

Where hydraulic design is influenced by upstream storage and/or tidal surges, the analysis of the storage and/or the tidal surges shall be considered in the design of the structure.

Bridge culverts shall have a minimum rise dimension of four (4) feet.

#### **12.3.3.1 Method Used to Estimate Flows**

The DB Team shall ensure the selected hydrologic method is appropriate for the watershed conditions.

As appropriate, the DB Team shall utilize flow information within FEMA Flood Insurance Studies (FIS) and any subsequent Letters of Map Revision (LOMR).

For crossings not located within a FEMA FIS or on a gauged waterway, the DB Team shall utilize the required method for calculating the design flows according to the Drainage Manual.

#### **12.3.3.2 Design Frequency**

Culverts and storm drain systems shall be designed for the Design Storm Event according to the Design Discharge Criteria in the Drainage Manual. Bridges shall be designed for the fifty (50) and one hundred- (100) year frequencies.

#### **12.3.3.3 Hydraulic Analysis**

The DB Team shall evaluate a bridge(s) for contraction and pier scour concerns and shall design for scour protection in accordance with the Drainage Manual.

For bridge abutments in urban areas, the DB Team shall install protection in accordance with Section 15 Landscape and Hardscape Enhancements.

#### **12.3.3.4 Riverine Bridge/ Bridge Culvert Design**

For existing bridges, the DB Team shall analyze each structure with the proposed flows to ensure it provides the required freeboard per the Drainage Manual. If this requirement is not met, the DB Team shall design and construct a replacement structure with sufficient capacity to pass the Design Storm Event flows while providing the required freeboards.

For existing bridge culverts, the DB Team shall analyze each structure with the proposed flows to ensure the headwater does not exceed that of the allowable headwater per the Drainage Manual. If this requirement is not met, the DB Team shall design and construct a replacement structure with sufficient capacity to pass the proposed Design Storm Event with a resulting headwater depth of no greater than the  $HW_d$ .

Bridge/bridge culvert design shall maintain the existing channel morphology through the structure, if possible.

#### **12.3.3.5 Bridge Deck Drainage**

Runoff from bridge decks shall be carried off the bridge and into the adjoining roadway drainage system. The roadway drainage design shall include bridge approach drains to intercept gutter/shoulder flow at each end of the bridge. Stormwater flowing toward the bridge shall be intercepted upstream of the bridge.

Open deck drains are not permissible for bridges passing over environmentally sensitive areas, roadways or railroads. In these situations, if ponding will exceed width limits, runoff shall be collected in inlets and conveyed in a closed deck drain system before discharging outside of these areas.

#### **12.3.3.6 Drainage Report for Hydraulic Structures**

The DB Team shall prepare a Hydraulic and Hydrologic (H&H) Study and any other required documentation for all existing and/or proposed river and tidal bridge sites and for culverts that meet any of the conditions listed in the Drainage Manual section 12.1 and any Environmental Commitments identified in the Approval of the Environmental Documents. Additional documentation may include but not be limited to the preparation and submittal of any CLOMR or LOMR required for community and/or FEMA coordination. The H&H Study shall further include the detailed calculations with electronic and printed copies of the computer software input and output files, as well as a discussion about hydrologic and hydraulic analysis and reasons for the design recommendations. At a minimum, for each crossing the H&H Study shall include:

##### Hydrology

- Drainage area maps with watershed characteristics (hardcopy);
- Hydrologic calculations (where computer software is used, both hardcopy report and electronic input and output files on a disc); and
- Historical or site data used to review computed flows.

##### Hydraulics and Recommended Waterway Opening and/or Structure

- Photographs of Site (pre- and post-construction);
- General plan, profile, and elevation of recommended waterway opening and/or structure;

- Calculations – include a hardcopy report of output, in addition to electronic input and output files for all computer models used for final analysis or for permit request(s) as well as a summary of the basis of the models;
- Cross-sections of waterway (a hard copy plot, plus any electronic data used); and
- Channel profiles.

#### Scour Analysis

- Channel cross-sections at bridge(s) showing predicted scour depths;
- Calculations and summary of the calculations table, clearly showing predicted scour and assumptions regarding bridge opening and piers (dimensions, shape, etc.) used to calculate predicted scour;
- Discussion of the potential for long-term degradation/aggradations and effects; and
- Recommendation(s) for abutment protection (type, size, dimensions, etc.).

These H&H Studies shall constitute a section in the Drainage Design Report.

### **12.4 Construction Requirements**

The DB Team shall design the Drainage System to accommodate construction staging. The design shall include temporary erosion control, sediment basins and other BMPs needed to satisfy the NPDES and other regulatory requirements. All environmental approval commitments related to drainage design and erosion control shall be included as “notes” on the plans for each stage of construction.

The DB Team shall obtain GDOT acceptance during the Design-Build Period to utilize any existing stormwater system (any and all pipe, structure, ditch, detention/retention system or any other component necessary for the conveyance of stormwater) outside the Project limits. Maintenance responsibility and costs shall be as follows during the Design-Build Period:

- Initial costs to reconstruct or upgrade the substandard drainage facility(ies) outside of the Project limits, shall be at the sole cost of the DB Team. Rehabilitation of substandard drainage facilities may be considered. The rehabilitation must meet the useful life as if the substandard drainage system structure was replaced as new;
- Any stormwater system accepted by GDOT and constructed for the sole purpose of the Project outside of the Project limits shall be maintained by the DB Team at the DB Team’s sole expense;
- The DB Team, at the DB Team’s expense, shall be responsible for maintenance and restoration of the existing system to its original intended purpose for any accepted existing stormwater system whether used jointly by the DB Team and GDOT or for the DB Teams sole use; and

- Maintenance work includes but is not limited to silt removal of any pipe, ditch, or structure, and removal of debris prior to the use of any existing GDOT stormwater system.

## **12.5 Deliverables**

The DB Team shall submit to GDOT for review and acceptance, a Drainage Design Report per the accepted Construction Phasing Plan, which shall be a complete documentation of all components of the Project's drainage system. At a minimum, the report shall include:

- A set of all drainage computations, both hydrologic and hydraulic, with all support data;
- Hydraulic notes, models, and tabulations;
- Bridge and culvert designs and Hydraulic reports. (each riverine bridge layout/design shall be submitted at the same time as their corresponding H&H Study);
- Pond designs, including a graphic display of treatment areas and maintenance guidelines for operation;
- A correspondence file;
- Drainage system data (location, type, material, size, and other pertinent information) in a suitable electronic format such as GIS;
- A post-Construction Stormwater Report with a Post-Construction BMP Infeasibility Report as applicable; and
- Storm sewer drainage reports (if applicable) including Temporary and Final Drainage System layout with staged erosion control BMP location details.

## 13 STRUCTURES

### 13.1 General Requirements

The structural Elements of the Project, including bridges, culverts, drainage structures, signage supports, illumination assemblies, traffic signals, retaining walls, and noise barrier, shall be designed and constructed in conformance with the requirements of the DB Documents, in order to provide the general public a safe, reliable, and aesthetically-pleasing facility.

DB Team shall prepare a detailed plan for such Elements constructed on the Project with recommended design and construction. The design of the Project shall be in accordance with Volume 3 Manuals (Technical Documents) and the requirements of the DB Documents.

### 13.2 Design Requirements

#### 13.2.1 Design Parameters

DB Team shall ensure that bridges crossing over waterways are designed in accordance with Section 12 and the DB Documents.

The DB Team shall design and construct all new bridge structures to accommodate any planned expansions or updates of each facility by its respective Governmental Entity or GDOT as designated in their respective current transportation master plans. The current transportation master plans can be found in Section 11 of Volume 2. For the purpose of the Technical Provisions, superstructure is the portion of the bridge above and including the bearings and the substructure is the remaining portion of the bridge below the superstructure.

Longitudinal expansion joints shall not be placed in the travel lane.

DB Team may use GDOT Construction Standards and Details on the Project without updating to meet Load Resistance Factor Design (LRFD) requirements. If DB Team chooses to modify any of the standards and details, the design shall be updated to meet LRFD requirements.

Unless otherwise noted, design and detailing for all structural elements, to be constructed or rehabilitated, and incorporated within the Project (not including future replacement structures), shall be based on the LRFD methodology using the GDOT Bridge and Structures Design Manual (GDOT Bridge Manual) as the primary reference. The current AASHTO LRFD Bridge Design Specifications (AASHTO LRFD Specifications) shall be used in conjunction with GDOT Bridge Manual. Where AASHTO LRFD Specifications and GDOT Bridge Manual requirements contradict or conflict with one another, the GDOT Bridge Manual requirements shall take precedence.

### Vertical Clearances

New bridges constructed over the interstate shall provide a minimum vertical clearance of seventeen (17) feet (new box girder bridges shall be seventeen (17) feet six (6) inches). Straddle bent substructure elements over the interstate shall provide a minimum vertical clearance of seventeen (17) feet six (6) inches. New bridges constructed over other roads such as State, Rural Secondary and Urban Routes, as defined by the GDOT Design Policy Manual shall provide a minimum vertical clearance of sixteen (16) feet nine (9) inches.

### Bridge Design Live Loads and Load Ratings

All new or widened bridges must be designed to carry an HL-93 vehicle live load. The DB Team is responsible to ensure that the Final Plans of each bridge meet the load rating requirements for the design vehicle as well as all current state legal live loads. GDOT will perform a load rating as part of the final review for each bridge design. Load ratings will be performed according to the current GDOT policy and practices.

### Seismic Design

Bridges shall be designed in accordance with the seismic design guidelines in the GDOT LRFD Bridge and Structures Manual as well as the current AASHTO LRFD Bridge Design Specifications.

### Fatigue Design

Fatigue design shall be in accordance the GDOT LRFD Bridge and Structures Manual as well as the current AASHTO LRFD Bridge Design Specifications.

## **13.2.2 Bridge Decks and Superstructures**

Timber bridges, masonry bridges, unpainted weathering steel and structural plate arches will not be permitted. Bridges shall not use intermediate hinges.

DB Team shall minimize the number of deck joints wherever possible. DB Team shall locate joints to provide for maintenance accessibility and future replacement.

To the extent possible, DB Team shall make bridge superstructures, joints, and bearings accessible for long-term inspection and maintenance. DB Team shall make open-framed superstructures accessible with walkways or by use of ladders or an under-bridge inspection truck.

Provide concrete diaphragms for pre-stressed concrete beams spanning 40 feet or more.

Galvanized steel diaphragms are allowed on prestressed concrete beam bridges, with the following limitations:

- Only structures with substantial clearance (20 ft. or greater) over roadways are acceptable locations for galvanized steel diaphragms.
- Structures over waterways are acceptable locations for galvanized steel diaphragms.
- Concrete diaphragms shall be used over roadways where the beams may be impacted by over-height loads.
- Bolts shall not be exposed on the exterior face of concrete beams.
- Only Steel X-type cross frames shall be used.

The maximum weight of beam that may be transported on state routes is limited. Shipping weights larger than 150,000 pounds, including the truck, shall be submitted to GDOT to determine if a special hauling route is necessary for delivery.

Bolted field splices are allowed for use on steel girders providing the following requirements are met:

- Bolts shall be placed in double shear.
- Splice plates and bolts shall not encroach on the slab design thickness
- Direct Tension Indicators (DTIs) shall not be used.

DB Team shall install locked entryways on all hatches and points of access.

Cover plates are prohibited for use on new steel beams. When widening existing bridges “in kind” that have cover plated members, use a larger member size that will not require plates. For strengthening and rehabilitation work of existing steel beams determine if there are other methods available to provide the required capacity before submitting to GDOT for acceptance. If accepted, cover plates shall be checked for fatigue in accordance with GDOT and AASHTO LRFD guidelines.

Fracture critical members (FCMs) shall not be used for bridges. Steel box girder straddle bent caps are considered to be FCMs due to their non-redundant properties and will not be permitted on the project. Post-tensioned concrete straddle bent caps are not considered FCMs as the posttensioning strands provide internal redundancy. Bridges designed using rolled steel beams, steel plate girders, pre-stressed concrete I-beams and pre-stressed concrete bulb-tee beams as the main members of the bridge superstructure shall be designed and constructed using a minimum of four (4) beams in the bridge typical section. Joints for all grade separation structures shall be sealed.

Box girder superstructures and substructures shall be accessible without impacting traffic below. DB Team shall make box girders and box beam pier caps with a minimum inside depth of six (6) feet to facilitate interior inspection. DB Team shall include a minimum access opening of 3'-0" diameter into all cells, and between cells, of the girders or pier caps to allow free flow of air during inspections. The outside access opening cover shall hinge to the inside of the box girder and pier caps. An electrical system (110V and 220V) shall be incorporated inside the box girder and pier caps with

lighting and power outlets. DB Team shall install air-tight sealed and locked entryways on all hatches and points of access.

### **13.2.3 Bridge/ Retaining Wall Foundations**

The foundation design shall be based on the recommendations of the accepted Bridge or Wall Foundation Investigation Report and the requirements of Section 8 of Volumes 2 and 3. The Contractor shall perform LRFD bridge and wall foundation investigations for all proposed walls and bridges to be constructed on this Project. Except as provided in Section 8 of Volume 2, any previously accepted reports provided by GDOT are for informational purposes only and GDOT does not certify or warranty the information contained in these reports.

For bridges crossing streams or any other body of water: All foundations shall be evaluated and designed to account for the effects of scour. The design shall include the recommendations of the hydraulics and hydrological report to ensure that footings, piles and caissons/ drilled shafts have the proper embedment below the scour line. Protection of slopes with rip rap shall be in accordance with the recommendations of the hydraulics report.

Foundations shall be designed based on LRFD methodology in accordance with Section 8, GDOT and AASHTO guidelines.

### **13.2.4 Bridge Railing and Barriers**

All barrier systems used on the Project shall meet current crash test and other safety requirements as determined by GDOT. All testing and associated costs for non-standard railings shall be the sole responsibility of DB Team and shall be accomplished through a third party acceptable to GDOT.

### **13.2.5 Retaining Walls**

To the extent possible, DB Team shall design and construct to provide embankments without the use of retaining walls. Where earthen embankments are not feasible, DB Team may use retaining walls.

Metal walls, including bin walls and sheet pile walls, recycled material walls and timber walls shall not be permitted.

If pipe culverts are to extend through the retaining walls or noise barriers the pipe shall be installed so that no expansion joints are located within two pipe diameters from centerline of the pipe or under the wall.

No weep holes through the face of retaining walls shall be permitted, except at the base of the walls.

Modular walls employing interlocking blocks shall not be used where surcharge loads from vehicular traffic are present or as part of bridge abutments.

Mechanically Stabilized Earth (MSE) walls shall not be used to support spread footing abutment foundations on the Project.

### **13.2.6 Aesthetics**

DB Team shall design retaining/structural walls to be similar in color, texture, and style that are consistent with other Elements present in the entire Project such as structures, landscaping, and other highway components.

All embellishments for structural Elements shall be coordinated with the DB Team's structural design team to facilitate constructability and maintain safety requirements. Structural element surfaces exposed to public view shall meet the requirements of the Standard Specifications, Construction of Transportation Systems.

No exposed conduits shall be allowed on bents, columns, bridge beams, overhangs or any other visible surface. The DB Team is to minimize drain pipe exposure to public view.

All bridge substructure columns shall be consistent in form and texture, with similar shapes and details used for all bridges on the project.

Bridges with all or part of the structure visible to traffic either passing beneath the bridge or travelling in lanes adjacent to the bridge, shall use constant depth of fascia beams along the entire length of the bridge to maintain a uniform appearance. An exception to this requirement is at locations where the fascia beam material changes from steel to concrete or vice versa. In this case cheek walls may be used at piers to mask transitions where superstructure depth change is required due to the change in material type.

Bridges that are not visible to traffic either passing beneath the bridge or travelling in lanes located adjacent to the elevated portions of the bridge are not required to have all fascia beams constant throughout the bridge length

### **13.2.7 Drainage Structures**

In developing the design of drainage structures, DB Team shall account for maximum anticipated loadings. "Step down" design shall not be utilized for any part of the proposed drainage system.

Energy dissipaters, if used, shall be considered as structural Elements.

### **13.2.8 Sign, Illumination, and Traffic Signal Supports**

DB Team shall be responsible for the design of overhead sign supports to accommodate a full load of signs for the Project. DB Team shall use sign bridge (Type I) or butterfly (Type III), or combination (Type IV) in accordance with GDOT's related standard specifications, policies, guidelines, and Volume 3 Manuals. Type II sign (cantilever type) structures are not permitted.

Support columns for Type I, III, and IV overhead sign structures or traffic signal mast arms shall not be mounted to any portion of the new or existing bridge superstructure. Where an overhead sign structure or mast arm is required to be placed on a bridge it shall be mounted either on the bridge substructure directly, such as the concrete pier cap, or on a pier and foundation separate from the bridge entirely. For a sign structure that is mounted to the pier cap, the bridge pier must be designed for the additional loads and forces the sign structure will induce on the bridge substructure, including but not limited to: dead load, ice load, wind load and vibration. Loads shall be developed in accordance with the current edition of the AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. For a sign structure or mast arm mounted to a foundation that is independent from the bridge, the design of the sign foundation shall be in accordance with the current edition of the AASHTO Standard Specification for Structural Supports for Highway Signs, Luminaires and Traffic Signals."

### **13.2.9 Widening/Modification of Existing Structure**

Structures to be widened are listed in Section 13.2.9 of Volume 2. DB Team is required to rehabilitate/strengthen/replace that portion of the existing structure as recommended by the most recent bridge condition and bridge deck condition surveys, and the portions of the existing structure that must be strengthened or upgraded as a direct result of the widening. Examples include strengthening of an existing fascia beam or improving the strength of a pier cap to meet the increased load capacity requirements due to the new load distribution on those elements. Any portion of the existing bridges damaged as a result of the widening operations will be replaced or repaired at the DB Team's cost, as determined by GDOT. The DB Team shall provide any studies, calculations, and plans that are required for GDOT review and acceptance prior to any bridge widening or modification.

#### **13.2.10 Reserved**

## **13.3 Construction Requirements**

### **13.3.1 Concrete Finishes**

Concrete finishes shall comply with the performance requirements as stated in Section 15 or as otherwise allowable in the DB Documents.

### **13.3.2 Structure Metals**

Welding shall be in accordance with the requirements of the *American National Standards Institute (ANSI)/AASHTO/ American Welders Association (AWS) D1.5M/D1.5:2010 Bridge Welding Code*.

### **13.4 Final Bridge Inspection Prior to Service Commencement**

GDOT shall inspect all bridges constructed prior to Service Commencement. GDOT will perform the initial bridge ratings as part of this Work. Bridges cannot be opened to traffic until bridges have been accepted by GDOT.

DB Team shall provide to GDOT an overall schedule of completion for each structure in accordance with the Construction Phasing Plan and coordinate an inspection schedule with GDOT that will meet the Service Commencement Date.

### **13.5 Deliverables**

#### Preliminary Bridge Plan Layouts

Prepare Preliminary Bridge Plan Layouts in accordance with the GDOT Bridge Detailing Manual guidelines.

A. Additionally provide a typical section which indicates the following information:

1. The center to center spacing of girders
2. Overhang or distance from outside edge of slab to center of exterior girder:  
This distance (overhang) shall meet AASHTO requirements, but shall not exceed 4'-7½" or one half of the adjacent beam spacing, whichever is less. Overhangs shall be a minimum width of one-half top beam flange plus 6 inches.
3. Cross slope of the deck.
4. Deck thickness between girders and deck thickness at the centerline of girder measured from the top surface of deck to top of the flange.
5. Barrier location, height and width.
6. Gutter to gutter and out-to-out dimensions.
7. Location of the profile grade.

B. Any drawing and/or narrative description of the construction scheme necessary to indicate how the bridge is to be built, including traffic handling sketches and temporary barrier locations.

#### Preliminary Wall Plans

Prepare Preliminary Wall Plans in accordance with the GDOT Bridge Detailing Manual guidelines. The acceptable wall types are as follows:

1. MSE (Mechanically Stabilized Earth)
  2. Alternate wall types, including cast-in place walls, are permissible. Soil-nail type walls and modular block type walls will not be permitted directly adjacent to areas subject to roadway surcharge loads, including but not limited to bridge end bents.
- A. Any construction sequence requirements that will affect the construction of the walls and which will have to be accounted for in the preparation of retaining wall plans.

#### Bridge and Wall Construction Plans

After the preliminary bridge and wall layouts have been accepted by GDOT, the DB Team shall prepare final plans. The DB Team shall arrange a meeting with GDOT to specifically discuss how the plans will be prepared prior to beginning plan preparation on the Project.

The DB Team shall provide Submittals as required in Section 23, Volume 3 Manuals (Technical Documents), and in the DB Documents in addition to the following:

- Hardscape Enhancement Plan for bridges, retaining walls, noise barriers, sign structures, and other structure components as required in Section 15.

## 14 RESERVED

## 15 RESERVED

## **16 SIGNING, PAVEMENT MARKING, SIGNALIZATION**

### **16.1 General Requirements**

This Section 16 includes requirements with which DB Team shall design and construct all signing, delineation, pavement markings, and signalization for the Project. The DB Team shall design the Project in conformance with GDOT policies, guidelines, and Volume 3 Manuals (Technical Documents).

### **16.2 Administrative Requirements**

#### **16.2.1 Meetings**

DB Team shall arrange and coordinate all meetings with local agencies that will assume responsibility for maintaining and operating traffic control devices including but not limited to traffic signals. DB Team shall provide GDOT with notification of such meetings a minimum of ten (10) business days prior to the start of the meeting. GDOT, in its discretion, may attend such meetings.

DB Team shall arrange and coordinate all meetings with requesting agencies or individuals regarding special signs.

### **16.3 Design Requirements**

#### **16.3.1 Final Plans**

DB Team shall submit the Preliminary and Final Plans for the signing, delineation, pavement marking, and signalization for GDOT review and acceptance. In the event that additional property is needed to place any required signs, the DB Team shall acquire the additional property as Additional Properties. Any Additional Property acquisitions not provided in the approved Environmental Document must be approved by GDOT, and if required FHWA through a NEPA reevaluation.

#### **16.3.2 Permanent Signing and Delineation**

DB Team shall design and install all signs as shown on the Final Plans. Signs for the Project shall include all new signs required for the Project as well as replacing existing signs and structures that are impacted by the Project. DB Team's design shall include the locations of proposed ground-mounted and overhead signs as well as existing signs that are to remain, graphic representation of all signs, proposed pavement markings, delineation placement, guide sign and special sign details, clearance diagrams and structural and foundation requirements. Signs shall be located in a manner that avoids conflicts with other signs, vegetation, CMS, lighting, and structures. DB Team shall ensure that signs are clearly visible, provide clear direction and information for users, and comply with all applicable MUTCD requirements. The DB Team shall ensure that

placement, construction and installation activities of signage shall avoid impacts to all environmentally sensitive resources.

DB Team shall ensure that all sign placements meet or exceed appropriate sight line requirements and standards. All sign structures and overhead signs shall be designed and located to ensure that they and any existing GDOT overhead signs have minimum sight distance of 1000 feet and shall meet any other MUTCD or *GDOT Signing and Marking Design Guidelines*, allowable sign spacing requirements.

DB Team shall review with GDOT all requests for new signs, including traffic generators, or modifications of existing sign legend. Such requests are subject to GDOT's acceptance.

Any existing signs and sign structures impacted by the project or in conflict with proposed signs shall be replaced with new signs and structures that comply with the MUTCD, GDOT's related standard specifications, policies, guidelines, and Volume 3 Manuals Technical Documents), or as otherwise approved by GDOT.

All overhead signs on a single structure shall be the same height with the exception of general information or regulatory signs such as Rest Area or an R554-X.

Arrow per lane guide signs shall be required for all multi-lane exits at major interchanges that have an optional exit lane that also carries the through route and for all splits that include an option lane.

Sign attachments to any existing roadway bridge shall not be permitted. Support columns for Type I, III, and IV overhead sign structures shall not be mounted to any portion of the new or existing bridge superstructure. When an overhead sign structure is required to be placed on a bridge it shall be mounted either on the bridge substructure directly, such as the concrete pier cap, or on a pier and foundation separate from the bridge entirely. For a sign structure that is mounted to the pier cap, the bridge pier must be designed for the additional loads and forces the sign structure will induce on the bridge substructure, including but not limited to: dead load, ice load, wind load and vibration. Loads shall be developed in accordance with AASHTO Standard Specifications for Highway Bridges, 17<sup>th</sup> Edition and the current edition of the AASHTO Standard Specification for Structural Supports for Highway Signs, Luminaires and Traffic Signals. For a sign structure mounted to a foundation that is independent from the bridge, the design of the sign foundation shall be in accordance with the current edition of the AASHTO Standard Specification for Structural Supports for Highway Signs, Luminaires and Traffic Signals.

Supplemental signs on interstates shall comply with MUTCD. Guidance on destinations is provided in GDOT's Policies and Procedures 6775-9.

### **16.3.3 Project Signs – Outside the Existing and Required ROW**

For signs located outside the Existing ROW, Required ROW and Additional Properties but within a public ROW, DB Team shall install the signs in existing rights-of-way controlled by local or other Governmental Entities. DB Team shall coordinate with applicable Governmental Entities for the design and installation of such signs. This shall include any trailblazing signing required for the project.

### **16.3.4 Reserved**

### **16.3.5 Specific Service Signs**

In addition to the warning, regulatory, and guide signs within the Premises, GDOT or Governmental Entities may allow specific service signs, such as LOGO signs to be installed. DB Team shall coordinate and cooperate with GDOT or any third party performing such work. The DB Team shall remove and remount any LOGO sign that conflicts with a proposed sign installation and also allow for proper sign spacing in accordance with GDOT Signing and Marking Design Guidelines and the MUTCD.

The DB Team shall contact Georgia Logos, LLC 770-447-6399 prior to removing or resetting LOGO signs. Cost for removing, resetting, and maintaining LOGO signs as necessary shall be included in the overall bid price. Existing LOGO signs shall be maintained during construction on a moveable structure. Any LOGO signs damaged during construction shall be replaced at no additional cost.

### **16.3.6 Sign Support Structures**

DB Team shall determine foundation types and design sign foundations based upon geotechnical surveys/tests. Sign support structures shall be designed in accordance with GDOT Signing and Marking Design Guidelines and AASHTO's *Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals*. The DB Team design of the structural support for overhead signs shall be provided to GDOT and must provide for the maximum allowable sign area that can be placed onto the structure support as defined in *GDOT Signing and Marking Design Guidelines*. Type III structures shall be designed to accommodate at least five hundred fifty (550) square feet of sign area. A GDOT structural support number shall be placed on the outside vertical support of structure. Requirements for the alphanumeric code are specified in the *GDOT Signing and Marking Design Guidelines*. DB Team shall use sign bridge (Type I) or butterfly (Type III) overhead sign structures in accordance with GDOT's related standard specifications, policies, guidelines, and Volume 3 Manuals. Designs for sign supports shall also comply with requirements in Sections 13 (Structures). Type II cantilever signs shall not be used for sign installations. The DB Team assumes all responsibility for ensuring that any existing overhead sign structure that has a change in design sign area and/or load due to new or revised signs must meet all structural requirements in GDOT Signing and Marking Design Guidelines and

AASHTO's Standard Specifications for Structural Supports for Highways Signs, Luminaires, and Traffic Signals.

### **16.3.7 Permanent Pavement Marking**

DB Team shall ensure that the design and installation of all pavement markings including Raised Pavement Markings (RPM) comply with the MUTCD, GDOT Signing and Marking Design Guidelines, GDOT standards and details and in accordance with GDOT specifications. Ensure use of contrasting black border around pavement markings on bridges and all other concrete surfaces. RPM's shall be installed where new pavement marking is provided.

### **16.3.8 Permanent Signalization**

#### ***16.3.8.1 Traffic Signal Requirements***

DB Team shall design and install fully-actuated permanent traffic signals at all GDOT-permitted intersections within Project limits. In addition, DB Team shall modify, as appropriate, any existing traffic signals impacted by the Project. DB Team shall coordinate with GDOT and the applicable local Governmental Entities to define appropriate traffic signal design requirements, local agency oversight of DB Team's Work, and final acceptance of traffic signals. DB Team shall coordinate with local Governmental Entities for synchronization of traffic signal networks.

DB Team shall provide interconnection systems between new or modified signals and any other signal system within the Project Site as required by GDOT or the applicable local Governmental Entity. Connection of the completed intersection to the Governmental Entity's communications network shall be coordinated with the Governmental Entity. DB Team shall ensure continuous communication with the traffic signal system within the Project Site, and shall provide all communication hardware/equipment for GDOT or the applicable local Governmental Entity to communicate with the signal systems within the Project Site.

DB Team shall provide both pedestrian and vehicle detectors at all traffic signals per GDOT or applicable local Governmental Entity's (maintaining agency) requirements within the Project Site.

DB Team shall coordinate with TMC and the District Traffic Operations to ensure that all signalized locations are permitted prior to submission of Final Plans.

#### ***16.3.8.2 Traffic Signal Timing Plans***

DB Team shall coordinate and implement signal timing plans that optimize traffic flows and provide signal coordination with adjacent intersections and arterials for all existing and new traffic signals, modified signals, and interconnected signals. DB Team shall obtain acceptance with GDOT or applicable local Governmental Entity for the initial signal timings and updating signal timing as necessary to maintain optimized flow.

### **16.3.8.3 Traffic Signal Permit**

As part of the design process, DB Team shall be responsible for obtaining necessary traffic signal permit or permit revisions by following applicable GDOT's or local Governmental Entities' signal permit process, prior to any new signal installation or existing signal modification.

### **16.3.8.4 Traffic Signal Support Structures**

DB Team shall coordinate with GDOT and the local Governmental Agencies to determine the type of traffic signal support structures. DB Team shall obtain the maintaining agency's acceptance of traffic signal support structures to be used on new signal installations.

## **16.4 Construction Requirements**

### **16.4.1 Permanent Pavement Marking**

DB Team shall install required full pattern pavement markings on all pavement courses before any roadway is opened to traffic in conformance with the MUTCD, GDOT Signing and Marking Design Guidelines and GDOT's standards, details and specifications. RPM's shall be placed and/or maintained when the roadway is open to traffic.

### **16.4.1 Permanent Signing and Delineation**

DB Team shall use established industry and utility safety practices when erecting or removing signs located near any overhead or underground utilities, and shall consult with the appropriate Utility Owner(s) prior to beginning such work.

DB Team shall maintain all applicable advance guide signs and/or exit direction signs in place at all times and shall not obstruct the view of the signs to the motorist. DB Team shall replace any other removed signs before the end of the work day.

Signing reflectivity shall conform to the current edition of the MUTCD and *GDOT Signing and Marking Design Guidelines*.

### **16.4.2 Permanent Signalization**

DB Team shall coordinate with the Utility Owner(s) and ensure necessary power service is initiated and maintained for permanent signal systems.

## **16.5 Deliverables**

All deliverables shall be presented to GDOT in both hardcopy, and electronic form compatible with GDOT software as required by the Volume 3 Manuals (Technical Documents) and the DB Documents.

### **16.5.1 Permanent Signing and Delineation**

Before placing any permanent signs, delineation, third-party signs, or non-standard sign structures, DB Team shall provide GDOT a layout indicating the proposed location of such items. Overhead sign structures will be reviewed and accepted by GDOT Bridge Department.

### **16.5.2 Permanent Pavement Marking**

Before placing any permanent pavement markings, DB Team shall provide GDOT a layout indicating the proposed location of such items.

### **16.5.3 Permanent Signalization**

DB Team shall, after implementing accepted timing plans, provide GDOT and Governmental Entities (maintaining agencies) responsible for operation and maintenance of the traffic signal system legible written documentation of all intersection characteristics, timing plan parameters and installation information necessary for GDOT or the Governmental Entity to incorporate the completed signal installation into the central intersection management software being used.

## 17 INTELLIGENT TRANSPORTATION SYSTEMS

Refer to Volume 2 for all Intelligent Transportation System requirements.

## 18 TRAFFIC CONTROL

### 18.1 General Requirements

DB Team shall design and construct the Project, in conformance with the requirements stated in this Section 18, to provide for the safe and efficient movement of people, goods, and services, through and around the Project while minimizing negative impacts to Users, residents, and businesses.

The design of the Project shall be in accordance with Volume 3 Manuals (Technical Documents) and the DB Documents.

### 18.2 Administrative Requirements

#### 18.2.1 Transportation Management Plan

DB Team shall prepare and implement a Transportation Management Plan (TMP), if required, that meets the requirements of the FHWA Work Zone Mobility and Safety Program which can be found at:

[http://www.ops.fhwa.dot.gov/wz/resources/final\\_rule/tmp\\_examples/tmp\\_dev\\_resources.htm](http://www.ops.fhwa.dot.gov/wz/resources/final_rule/tmp_examples/tmp_dev_resources.htm)

At a minimum, the TMP shall include descriptions of the qualifications and duties of the traffic engineering manager, traffic control coordinator, Worksite Traffic Control Supervisor (WUCS), and other personnel with traffic control responsibilities. Additional requirements of the TMP are below:

- Procedures to identify and incorporate the needs of transit operators, Utility Owners, Governmental Entities, local governmental agencies, Emergency Service providers, school districts, business owners, and other related Users, Customer Groups or entities in the Project corridor and surrounding affected areas.
- Procedures for obtaining acceptance of detours, road and lane closures and other traffic pattern modifications from applicable Governmental Entities, and implementing and maintaining those modifications. At a minimum these procedures must include:
  - DB Team shall notify the traveling public by placing CMS's a minimum of seven (7) Days in advance of actual roadway closure or major traffic modifications. Where available and when possible, the DB Team shall coordinate and utilize Overhead Changeable Message Signs on the regional ITS system.
  - DB Team shall utilize off-duty uniformed police officers for mainline lane closures.
- Procedures for signing and marking transitions during construction from one stage to the next and from interim to permanent signing and marking.

- Procedures for maintenance and replacement of traffic control devices, including pavement markings and traffic barriers, if used.
- Procedures to regularly evaluate and modify, if necessary, traffic signal timings, and the procedures for the development, GDOT acceptance (and local Governmental Entity acceptance, if necessary), implementation, testing, and maintenance of all affected signals.
- Procedures to coordinate with the appropriate Governmental Entities operating signal networks along the Project or Project detour routes to ensure temporary system compatibility, establish responsibilities for temporary signal installation, maintenance, operation and removal, and coordinate traffic signal timing with local signal networks.
- Procedures and process for the safe ingress and egress of construction vehicles in the work zone
- Provisions to provide continuous access to established truck routes and Hazardous Material (HazMat) routes, and to provide suitable detour routes, including obtaining any acceptances required by the appropriate governmental entities for these uses.
- Procedures to modify plans as needed to adapt to current Project circumstances.
- If required, procedures to communicate TMP information to DB Team's public information personnel and notify the public of maintenance of traffic issues in conjunction with the requirements of Section 3, of Volume 2,
- Descriptions of contact methods, personnel available, and response times for any deficiencies or Emergency conditions requiring attention during off-hours.

The TMP shall be submitted within one hundred twenty (120) Days from NTP 1 and must be accepted by GDOT prior to NTP 3.

The safe, convenient passage of the traveling public shall be ensured by the DB Team at all times. The DB Team shall prepare contingency traffic control plans for use in relieving travel delays. If in GDOT's sole opinion, sustained traffic control placement creates unnecessary hindrance to the travelling public, the DB Team shall implement contingency plans that will alleviate traffic congestion immediately or cease traffic interruptions immediately upon notification from GDOT.

## **18.3 Design Requirements**

### **18.3.1 Traffic Control Plans**

DB Team shall use the procedures in the TMP (if applicable) and the guidelines of the MUTCD, AASHTO's *Roadside Design Guide*, as well as comply with GDOT *Special Provision 150 – Traffic Control* to develop detailed traffic control plans which provide for all Construction Phases and construction stages, as well as all required traffic shifts procedures.

DB Team shall produce a traffic control plan for every Construction Phase that impacts traffic. Each traffic control plan shall be submitted to GDOT for review a minimum of

fourteen (14) Days prior to implementation. The traffic control plan shall include details for all detours, traffic control devices, striping, and signage applicable to each Construction Phase. Information included in the traffic control plans shall be of sufficient detail to allow verification of design criteria and safety requirements, including typical sections, alignment, striping layout, drop off conditions, and temporary drainage. The traffic control plans shall clearly designate all temporary reductions in speed limits. Changes to posted speed limits will not be allowed unless specific prior acceptance is granted by GDOT.

Opposing traffic on a divided roadway shall be separated with appropriate traffic control devices in accordance with AASHTO's *Roadside Design Guide*, the MUTCD based on the roadway Design Speed, and Volume 3 Manuals (Technical Documents).

DB Team shall maintain signing continuity on all active roadways within or intersecting the Project at all times.

Throughout the Term, DB Team shall ensure all streets and intersections remain open to traffic to the greatest extent possible by constructing the Work in stages. DB Team shall maintain access to all adjacent streets and shall provide for ingress and egress to public and private properties at all times during the term of the Project.

DB Team shall prepare public information notices, if required, in coordination with Section 3, in advance of the implementation of any lane closures or traffic switches. These notices shall be referred to as Traffic Advisories.

#### **18.3.1.1 Roadway Guidelines**

DB Team shall produce traffic control plans for periods of construction in accordance with Volume 3 Manuals (Technical Provisions), Special Provision Section 150, and the DB Documents document.

##### **18.3.1.1.1 Design Parameters for Traffic Control**

Design Vehicle: Turning movements shall accommodate a design vehicle specified by the *GDOT Design Policy Manual* for specific road classifications. Turning movements on all other local streets and driveways shall, at a minimum, provide similar characteristics as existing Geometry.

Work Zone Speed Limits: The work zone speed limits on Interstate and State Highways shall be in conformance with *Special Provision 150*.

Number of Lanes: Except as allowed by Section 18 of Volume 2, the minimum number of lanes to be maintained shall be the number of lanes currently available on each controlled access facility, lane closures on other roadways may be considered so long as all traffic patterns and accesses are not reduced and are maintained.

Lane Widths: During construction, the minimum lane width for main lanes, frontage roads and major crossing streets is eleven (11) feet. For minor crossing streets, GDOT may, in its sole discretion, allow ten (10') lanes in limited circumstances during construction for short distances after reviewing the DB Team's traffic control plan.

#### **18.3.1.1.2 Allowable Shoulder/Lane/Roadway Closures and Traffic Stage Changes**

DB Team shall provide GDOT and appropriate Customer Groups a minimum of two weeks advance notice for lane/shoulder closures and/or traffic stage changes planned to be in effect longer than twenty four (24) hours, and a minimum of twenty four (24) hours advance notice for lane closures that are planned to be in effect less than twenty four (24) hours, using all appropriate tools as needed. The DB Team shall coordinate the closure restrictions with GDOT on all lane/shoulder closures (or an event that results in lane closures) into GDOT's ITS web based information tool.

Closures must be coordinated with adjacent projects to ensure the safe convenient passage of the traveling public. During construction of the Project, GDOT will facilitate coordination with all local entities for Traffic Control.

#### Lane and Shoulder Closure During Design-Build Period

DB Team may reduce the number of travel lanes in accordance with the restrictions in Section 18 of Volume 2.

The DB Team shall not install lane and shoulder closures, perform flagging, or move equipment on the travel way of any roads or streets from the Wednesday before Thanksgiving Day to the first Business day after New Year's Eve yearly between the hours of 5:00 a.m. to 11:00 p.m. Monday thru Friday and between the hours of 7:00 a.m. to 11:00 p.m. Saturday and Sunday.

Additional lanes may be closed during off peak or nighttime hours upon receipt of written permission from GDOT. Consideration will be given to traffic data collected in VPH/lane formatting during allowed closure periods that clearly demonstrates industry accepted traffic flow ratios can be maintained.

#### Full Roadway Closure

DB Team will not be permitted for any full (all lanes and shoulders) roadway closures unless accepted by GDOT and Governmental Entities having jurisdiction of roadways affected by the closure.

GDOT will have the right to lengthen, shorten, or otherwise modify the foregoing restrictions as actual traffic conditions may warrant. The detour route for these full roadway closures shall be limited to usage of the on and off ramps at the mainline interchange locations. DB Team shall utilize off-duty uniformed police officers for all detours.

Any complete roadway closure will require a Traffic Control Plan to be submitted and accepted by GDOT and Governmental Entities having jurisdiction of roadways affected by the closure. Availability of frontage roads, ramp locations and detour distances shall be considered in the design.

### Holiday Restrictions

No work that restricts or interferes with traffic shall be allowed from 12:00 noon on the day preceding to 10:00 pm on the day after the following holiday schedule. GDOT has the right to lengthen, shorten, or otherwise modify these restrictions as actual traffic conditions may warrant.

- Gwinnett, Barrow, and Jackson County School's spring break (Friday through Monday before the week of spring break and Friday through Monday after the week of spring break)
- Easter (Friday through Monday)
- Mother's Day (Friday through Monday)
- Memorial Day Weekend (Friday through Monday)
- Independence Day (July 3 through noon on July 5th)
- Georgia Tax Free Weekend/Sales Tax Holiday (Friday through Monday)
- Labor Day Weekend (Friday through Monday)
- Thanksgiving Holiday (Wednesday through Sunday)
- Christmas Holiday (December 23 through 26)
- New Year Holiday (December 31 through January 1)

## **18.4 Construction Requirements**

Construction shall be in accordance with GDOT accepted DB Team's TMP, as well as applicable provisions of the MUTCD and GDOT Special Provision section 150 – Traffic Control.

### **18.4.1 DB Team Responsibility**

If at any time GDOT determines DB Team's traffic control operations do not meet the intent of the TMP (if applicable) or any specific traffic control plan, DB Team shall immediately revise or discontinue such operations to correct the deficient conditions.

DB Team shall provide GDOT the names of the Certified Workzone Traffic Control Supervisor and support personnel, and the phone number(s) where they can be reached twenty four (24) hours per day, seven (7) days per week.

Workzone Law Enforcement consists of utilizing uniformed police officer(s) equipped with a marked patrol vehicle and blue flashing lights to enforce traffic laws in construction workzones and the administration of this service. Workzone Law Enforcement shall be deployed during lane closures, traffic pacing, and at all other times the DB Team determines necessary for the safety of everyone within the Project

limits. The DB Team shall be responsible for coordinating and scheduling the utilization of the Workzone Law Enforcement.

The DB Team shall provide a daily work record compiled on a form provided by the Department, signed by the police officer(s) and signed by the Contractor's Worksite Traffic Control Supervisor attesting that the police officer(s) was utilized during the time recorded. No separate payment will be made for Workzone Law Enforcement. Payment for Workzone law enforcement shall be under the Construction Complete Lump Sum Item. Payment shall be full compensation for reimbursing the law enforcement agency, and for all other costs incurred by the Contractor in coordinating, scheduling, and administering the item Workzone Law Enforcement.

#### **18.4.2 Access**

Existing bicycle and pedestrian access and mobility shall be maintained across all cross streets. Access to existing transit stop locations shall be maintained during construction or reasonable alternative locations shall be provided, if applicable.

#### **18.4.3 Detours**

DB Team shall maintain all detours. A pavement transition, required in accordance with AASHTO's *Roadside Design Guide*, GDOT guidelines and the MUTCD based on the roadway Design Speed of the section shall be provided at all detour interfaces.

## **19 MAINTENANCE DURING THE DESIGN-BUILD PERIOD**

### **19.1 General Requirements**

The DB Team shall maintain the Project from NTP 3 through the remainder of the Design-Build Period in a manner that provides a safe and reliable transportation system. Upon NTP 3, the DB Team shall be fully responsible for maintenance as required by GDOT Standard Specification 105.14.

#### **19.1.1 Reserved**

#### **19.1.2 GDOT Obligation to Repair**

In the period between the Effective Date and NTP 3, GDOT/Appropriate Local Agency will reasonably perform the type of routine maintenance of each Element Category of the existing improvement which normally occurs in GDOT's highway maintenance and repair program. GDOT/Appropriate Local Agency is not obligated to extend the Residual Life of any Element through reconstruction, rehabilitation, restoration, renewal, or replacement.

### **19.2 Construction Maintenance Limits Plan**

The DB Team shall specify the physical boundaries of the DB Team's maintenance responsibilities for the Construction Work during the Design-Build Period. The Construction Maintenance Limits Plan can be provided as a drawing or set of drawings that highlight the exact area of the proposed construction and maintenance responsibilities within the ROW, as well as the limits of any Additional Properties to be acquired for the Project. This drawing will serve as the boundary for Construction Work and will also be used as the exact limits for DB Team to maintain any Element required to construct the Project beginning at the time of NTP3 through Final Acceptance. The DB Team shall be responsible for all maintenance activities, in accordance with the GDOT Standard Specifications, Construction of Transportation Systems, within these limits that is impacted due to the construction activity of the DB Team, including but not limited to:

- Pavement maintenance including pothole patching, concrete patching, striping, etc.;
- Existing ITS system and Drainage System continuity;
- Landscaping repair;
- Utility Adjustments; and
- Existing lighting system.

The DB Team shall provide the final Construction Maintenance Limits Plan no later than one hundred and fifty (150) Days from NTP1 or prior to the start of a construction phase (see Section 23). The drawing should show hash marks or a method to clearly depict the area of the Construction Maintenance Limits. The DB Team is required to depict in

the Construction Maintenance Limits Plan any and all proposed staging and lay down areas. All staging and lay down areas must have prior approval by GDOT.

Notwithstanding GDOT's approval of the Construction Maintenance Limits, The DB Team shall be responsible for any and all maintenance for any area(s) encroached on by the DB Team during the performance of the Construction Work.

The DB Team shall provide Construction Maintenance Limits phasing plan per the approved Construction Phasing Plan required in Section 23.

## 20 RESERVED

## **21 RESERVED**

## **22 NOISE BARRIERS**

### **22.1 General**

DB Team shall design and construct the noise barriers to achieve the decibel reduction requirements in the Environmental Documents. A final decision on the installation of noise barriers will be made upon completion of additional detailed noise abatement analysis based on the Final Plans, applicable state policies and federal guidelines, and public outreach to property owners and dwellers. Coordination with property owners and dwellers will be conducted prior to the final decision on the installation of the noise barriers. If coordination with property owners results in a noise barrier or portion of a noise barrier to not be installed, this shall be considered a GDOT Change. The DB Team is responsible to implement the noise barriers required in the final noise abatement analysis in the Environmental Documents. All materials used to construct the noise barriers shall conform to the requirements of the GDOT Qualified Products List (QPL).

DB Team shall design noise barriers walls to be similar in color, texture, and style that are consistent with other Elements present in the entire Project such as structures, landscaping, and other highway components.

Interlocking Steel Panels (Type B) and Treated Timber Panels (Type D) as listed in the Standard Specifications, Construction of Transportation Systems, Section 624.1 for noise barriers shall not be permitted, except that Interlocking Steel Panels (Type B) can be used on existing bridge barriers and on existing retaining walls. The DB Team is to provide a final structural design to the existing infrastructure that meets the requirements of the location(s) of the noise barriers as provided in the approved Environmental Document.

All bottom panels of free standing noise barriers shall be embedded a minimum of six inches (6") below finished ground line. Noise barriers shall include access doors at regular intervals for maintenance. Access doors shall be located in noise barrier walls that are greater than fifteen hundred (1500) feet in length. An access door shall be located at the mid-point of the wall length for walls between fifteen hundred (1500) feet and two thousand (2000) feet. Access doors shall be spaced approximately every one thousand (1000) feet for noise barrier walls greater than two thousand (2000) feet in length. Access doors shall not be located on noise barrier walls mounted to bridges, retaining walls, or where a steep or vertical drop-off of the final grade is occurring.

Color scheme of noise barriers shall be consistent throughout the project and shall be aesthetically pleasing as determined by GDOT.

## 23 SUBMITTALS

### 23.1 General

The DB Team shall provide Project Submittals, in both electronic and hard copy format, as required to obtain any acceptance or final Release for Construction (as applicable) by GDOT and to demonstrate compliance with the DB Documents, Government Acceptances, and regulations. Volume 2 (Technical Provisions) provides a list of some of the required submittals. The Volume 3 Manuals (Technical Documents) or other requirements in the DB Documents may require additional Submittals. This list is intended to be a guide for coordinating reviews and facilitating the Work.

The DB Team may design and construct the Project in multiple phases. A Construction Phase is a portion (segment) of the overall Project. If the Project will be designed and constructed in multiple phases, then the DB Team shall provide a Construction Phasing Plan and Submittals Schedule per construction phase within thirty (30) days from NTP 1. The Construction Phasing Plan shall provide logical termini for each proposed segment or phase of the Work and must consider any phasing of required acceptances. For a given Construction Phase, DB Team shall be allowed to either submit a complete set of drawings or make a series of Staged Design Submittals (components). The timing and content of Staged Design Submittals must be logical and shall include or be preceded by related items (e.g., bridge submittals must include or be preceded by related highway geometry; a bridge and its related retaining walls must be submitted together; etc.). The Submittals Schedule shall identify all proposed Staged Design Submittals and what components will be included in each. The DB Team must obtain GDOT acceptance of the Construction Phasing Plan and the Submittals Schedule prior to providing any design submittals for GDOT review. In addition, a “Design Submittal Guide / Index” showing a proposed index of plan sheets for each Construction Phase must be submitted and accepted prior to providing any design submittal. Once accepted, this Design Submittal Guide / Index shall be updated and provided with each subsequent design submittal. File naming of each plan sheet in a submittal shall correspond to the final index name of the plans for ease of reference to create the final set of drawings. The Design Submittal Guide / Index shall also include all reports, specifications, studies, calculations, etc.

Sufficient review and revision time shall be provided in the schedule and shall account for possible multiple re-submittals to secure a final Released for Construction prior to starting construction on any particular Element of the Work. Construction shall not proceed on any of the work until the design submittal has been reviewed, accepted and Released for Construction as described in Section 23.3 below.

#### 23.1.1 Detailed Estimate of Quantities

The DB Team shall provide a detailed estimate with the RFC Plans which identifies GDOT Pay Items, pay item descriptions, units and estimated quantities for the Project.

The DB Team shall provide quantities in the Final Bridge Plans in accordance with the GDOT Bridge and Structures Design Manual.

## **23.2 Design Submittals and Progress of Design Work**

Each required Submittal shall be delivered to GDOT in conformance of the review times provided in Volume 2, Section 23.2. The times provided in Volume 2, Section 23.2 are specifically for the review period required for GDOT to comment and GDOT to subsequently accept if all requirements of the DB Documents are met. Accuracy, completeness, and time spent to address GDOT comments are the responsibility of the DB Team. Notwithstanding the foregoing, notices sent after 12:00 p.m. Eastern Standard or Daylight Time (as applicable), including all notices, correspondence or communications (including e-mail and facsimile) received after 12:00 p.m. shall be deemed received on the first business day following delivery (that is, in order for a fax to be deemed received on the same day, at least the first page of the fax must have been received before 12:00 p.m.).

No fabrication, casting or construction will occur until all related design review and shop drawing review comments are resolved and the corresponding drawings and specifications have been accepted by GDOT and stamped “Released for Construction”. All design submittals shall be complete along with all the supporting information necessary for review. The work must represent logical work activities and must show impacts on subsequent work on this Project. Any modification to the component construction due to subsequent design changes as a result of design development is solely at the DB Team’s risk.

### **23.2.1 Construction Phasing and Additional Submittal Requirements**

The DB Team is responsible for obtaining any Government Approvals or other approvals required to allow for implementation and construction of the phasing plan. The DB Team shall not begin any work including any land disturbing activities for the Construction Phase contemplated for construction until the following have been completed or accepted by GDOT, FHWA, and/or Governmental Entity as required:

- All required Management Plans are accepted and NTP 3 is issued (Construction Phase or entire Project)
- Acceptance of the Construction Phasing Plan
- Acceptance of the Construction Maintenance Limits Plan for the proposed Construction Phase of work
- Acceptance of the Submittals Schedule (Design Submittal Guide)
- Acceptance of the Project Baseline Schedule
- Acceptance of the Conceptual Layout Plan for the entire Project by GDOT and FHWA (if applicable)
- Acceptance of the Drainage Report (for the contemplated Construction Phase)
- Acceptance and subsequent Release for Construction of the Final Plans for the construction contemplated (Construction Phase or entire Project).

- Utility Certification or recertification by GDOT and FHWA, as applicable (Construction Phase or entire Project)
- Environmental recertification by GDOT
- Acceptance of any required Design Variances or Design Exceptions (Construction Phase or entire Project)
- Approved Permits (including but not limited to the USACE Section 404 permit and traffic signal permits)
- Acceptance of Erosion Sedimentation and Pollution Control Plans (Construction Phase or entire Project)
- Executed NPDES Notice of Intent (NOI) (Construction Phase or entire Project)
- Acceptance of Construction Quality Management Plan
- Acceptance of Traffic Control Plan (Construction Phase or entire Project)
- Acceptance of Traffic Management Plan
- Utility Agreements, Utility Encroachment Permits, Utility Relocation Plans, Utility Retentions (as required) and/or Contractor Certification of “No-Conflict”
- Provide the existing GIS data and existing mapping as required in Section 12.3.2.1
- ROW certification by GDOT

### **Staged Design Submittals**

Once the Conceptual Layout Plan for the entire Project has been accepted by GDOT the DB Team shall be allowed to submit Staged Design Submittals (components) instead of a completed set of drawings for an entire accepted Construction Phase. A Staged Design Submittal is a submittal that consists of a portion or portions of the Work within the limits of an accepted Construction Phase. For example, a Staged Design submittal for a bridge might be categorized as foundations, substructures, abutments or complete continuous units of superstructure. Staged Design Submittals for other components of the Project might include grading, drainage, signing & pavement marking and erosion control. If the DB Team chooses to provide Staged Design Submittals, the list of Staged Design Submittals shall be identified as part of the proposed Construction Submittals Schedule.

### **Changes to Accepted and Released for Construction Submittals**

After GDOT has accepted the Final Plans and has authorized them as Released for Construction then the DB Team shall submit to GDOT a request for any subsequent plan/design changes and include necessary documentation which supports the reasoning behind the change request. GDOT must accept the requested change with written notice prior to its implementation as a plan revision and subsequent construction activity.

## **Presentation Requirements**

The DB Team shall provide all plan submittals in accordance with the *Plan Development Process (PDP)*, *Electronic Data Guidelines (EDG)* and the *Plan Presentation Guide (PPG)* Manuals for GDOT reviews.

The Plans shall be fully dimensioned in English units; all elevations necessary for construction shall be shown similar to the Department's normal practice. All plans are to be prepared on the scales according to GDOT's Plan Presentation Guide (PPG).

Each location shall include details for all civil elements and calculations within proximity of the site so that these locations can be reviewed holistically and connections with communication and electrical networks are clearly understood.

**Construction Plans Organization and Sheet Index:** Construction plans shall be assembled according to the GDOT Plan Presentation Guide (PPG).

**Computations:** All design computations and computer printouts shall be neatly recorded on 8 ½" by 11", fully titled, numbered, indexed, dated and signed by the designer/Project manager and checker. The computer files and two copies of the computations fully checked and appropriately bound, shall be submitted to GDOT with the plans. A complete tabulation of the drainage analysis along with the calculations used to determine the size of drainage structures shall be submitted to GDOT.

**Submittal Formats:** Each design submittal shall, in addition to electronic delivery in .pdf format on the web-based document management system, consist of ten (10) sets of scalable 11"x 17" or 12" x 18", six (6) full size 24" x 36" design drawings and six (6) sets of calculations and a DVD/CD of the submittal including all InRoads, MicroStation V8 format files. For all Final Plan submittals (plans, calculations, specifications, reports, etc.), each document shall be sealed by a qualified Registered Professional Engineer in the State of Georgia. In addition to written design review comments (if any), design drawings may be returned to the DB Team with any remarks indicated. After a design drawing submittal is "Released for Construction", the DB Team shall, in addition to posting the complete electronic files on the web-based document management system, furnish GDOT with one (1) full size 24" x 36" set and ten (10) sets of 11"x 17" or 12" x 18", corrected design drawings as well a DVD/CD containing the design drawings in InRoads, Micro-station V8 format. After all individual Staged Design Submittals have been accepted for a particular Construction Phased Plan; a final complete set of plans for the Construction Phase will be compiled and provided to GDOT as the Released for Construction set.

**Additional Specifications:** In addition to the design drawings that include Georgia standards and details, the DB Team shall prepare and furnish to GDOT, specifications for construction work included in the plans which are not covered by the GDOT's *Standard Specifications*, the *Supplemental Specifications* and/or the *Special Provisions* as required in Volume 3 Manuals (Technical Documents).

Any submittal(s) received by GDOT after 12 PM (noon) shall be considered as being received the following business day.

### **23.3 Submittals Process**

Review of the Design Documents by GDOT may be limited to the basic requirements of the DB Documents, relating to design compliance and material type(s) and may not include detailed review or checking of design of components and related details or the accuracy with which such designs are depicted on the design drawings.

Review and/or acceptance of any Design Documents shall not relieve the DB Team of responsibility under the Contract including the overall correctness of Design Documents including engineering mathematical computations. All Design Documents, including but not limited to plans, specifications, reports, calculations, shop drawings (where public safety is affected) and Permit documents shall be submitted to GDOT. GDOT will be responsible for distributing the submittals to all required parties of the contract.

All Submittals shall include a cover letter describing the submittal, review period and the due date for any GDOT response.

All Submittals shall include the DB Team's QC/QA certification statement (in addition to the design consultant's QC/QA certification statement for all design related submittals). GDOT will reject any submittal if the QC/QA certification statement is not included. Each submittal shall also provide a certification statement that the submittal complies with all terms and conditions of the Agreement signed by the EOR.

#### **Required Participants of the Process**

GDOT, except as otherwise required in the DB Documents, will be primarily responsible for verifying that the accepted Design Quality Management Process as required in Section 2 has been followed, verifying that the submittal meets all contract requirements, ensuring that all necessary Governmental Approvals have been obtained by the DB Team, and performing any review(s) as provided for in Volume 2, Section 23.

DB Team is responsible to provide all required Submittals in compliance with the DB Documents and in compliance of the accepted Submittals Schedule. The DB Team must further provide a certification that the submittal meets the terms of the contract and has been independently reviewed in accordance with the accepted Design Quality Management Plan (see Section 2) with the each submittal.

#### **Process**

- The DB Team shall provide independent review for all submittals in compliance with the accepted Design Quality Management Plan as specified in Section 2.3.15.

- DB Team provides the submittal to GDOT via web based application and required hard copies in accordance with the submittal schedule. Submittals shall be categorized into “Discipline Groups” as follows:
  - Right of Way, Railroad and Utilities (RRU Group)
  - Roadway, Drainage and Maintenance of Traffic (RDMOT Group)
  - Bridge, Structures, Retaining Walls and Aesthetics (BSRA Group)
  - ITS, Traffic (includes signing, pavement marking, signals and lighting) (ITSTT)
  - All types (ALL Group)
  - Other (OTH)
- GDOT logs in the submittal and distributes to the required review participants.
- Review period begins (the following business day for any submittals received after 12p.m.) per the period as prescribed in Volume 2, Section 23.2, except where there is a maximum number of concurrent submittals of a particular type specifically noted in Volume 2, Section 23.2; in such cases and where the maximum is exceeded, the review period will begin when prior submittal reviews are completed so that the maximum number in concurrent review is not exceeded. For the general case where there is not a maximum number of concurrent submittals specifically noted in Volume 2, Section 23.2, an additional seven (7) days will be added to the prescribed review period whenever there are more than five (5) concurrent submittals in review in the subject document’s particular Discipline Group. Further, an additional seven (7) days will be added for each additional increment of five (5) concurrent submittals in review in a Discipline Group. For example, if there are between six (6) and ten (10) submittals in concurrent review in a Discipline Group, then an additional seven (7) days are added; and if there are between eleven (11) and fifteen (15) submittals in concurrent review in a Discipline Group, then an additional fourteen (14) days are added, etc. For purposes of calculating the number of submittals, the accepted submittal schedule will generally be used as a guide except that complementary documents, for example bridge plans and bridge calculations, will be considered a single submittal. Documents that fully integrate multiple disciplines in the presentation, for example roadway and drainage plans, together with the respective calculations would be counted as one submittal. For example documents or packages that include multiple bridges or toll gantries, each individual bridge or toll gantry will be counted as a separate submittal.
- Once a review is complete the drawings and or Submittal will be designated by GDOT as either:
  - Accepted
  - Accepted with Comments
  - Rejected

The terms “Accepted” and “Accepted with Comments” shall mean that the design process may proceed and is not a notice that construction may begin.
- If “Accepted” or “Accepted with Comments”, the GDOT Representative will deliver the comments and, if necessary, return the drawings and/or Submittal via web based application and/or hard copy to the DB Team. For final Submittals,

after updating the documents to resolve all comments (as applicable) and receiving written notice from GDOT that the drawings and/or Submittal are “Released for Construction” pursuant to Exhibit 1 of the Agreement, the DB Team shall stamp the accepted set “Released for Construction” and distribute copies as required within three (3) business days.

- If “Rejected”, the GDOT Representative shall deliver the rejected drawings and/or Submittal via web based application and/or hard copy to the DB Team. The DB Team shall address the specific comments and resubmit. The resubmittal become a new Submittal and shall follow the same time period as provided in Volume 2, Section 23.2.

## **23.4 Shop Drawings and Temporary Works Submittals**

### **23.4.1 General**

Shop drawings include all working, shop, and erection drawings, associated trade literature, calculations, schedules, manuals, and similar documents submitted by the DB Team to define some portion of the project work. The type of work includes both permanent and temporary works as appropriate to the project. Permanent works include all the permanent structures and parts thereof required of the completed DB Documents. Temporary works include any temporary construction work necessary for the construction of the permanent works. This includes falsework, formwork, scaffolding, shoring, temporary earthworks, sheeting, cofferdams, special erection equipment, and the like. Falsework includes any temporary construction work used to support the permanent structure until it becomes self-supporting. Falsework includes steel or timber beams, girders, columns, piles and foundations, and any proprietary equipment including modular shoring frames, post shores, and adjustable horizontal shoring. Formwork includes any structure or mold used to retain plastic or fluid concrete in its designated shape until it hardens. Formwork comprises common materials such as wood or metal sheets, battens, soldiers and walers, ties, proprietary forming systems such as stay-in-place metal forms, and proprietary supporting bolts, hangers and brackets. Formwork may be either permanent formwork requiring a shop drawing submittal such as stay-in-place metal or concrete forms, or may be temporary formwork which requires certification by the Specialty Engineer for construction affecting public safety and for major and unusual structures. Scaffolding is an elevated work platform used to support workmen, materials and equipment, but not intended to support the structure. Shoring is a component of falsework such as horizontal, vertical or inclined support members. In this Section, this term is interchangeable with falsework.

Construction affecting public safety is defined as construction that may jeopardize public safety such as structures spanning functioning vehicular roadways, pedestrian walkways, railroads, navigation channels of navigable waterways and walls or other structure foundations located in embankments immediately adjacent to functioning roadways. It does not apply to those areas of the site under the DB Team’s control and outside the limits of, or influence of, normal public access.

For the purpose of shop drawing review and processing as described in Section 23.4, the term “Specialty Engineer” will apply to the initiator or producer of shop drawings regardless of whether or not that party is normally the EOR; and the term “Engineer of Record” will apply to the shop drawing checker and certifier regardless of whether or not that party is normally the EOR or the Specialty Engineer.

### **23.4.2 Work Items Requiring Shop Drawings**

In general, GDOT requires shop drawings for items of work not fully detailed in the plans which require additional drawings and coordination prior to constructing the item, including but not limited to:

- Bridge components not fully detailed in the plans, i.e. segments, steel girder details, post-tensioning details, handrails, etc.
- Retaining wall systems
- Precast Box Culverts
- Non-standard Drainage structures, attenuators, and other nonstructural items
- Building structures
- Drainage structures, attenuators, and other nonstructural items
- Design and structural details furnished by the DB Team in compliance with the Contract
- Temporary Works affecting public safety

### **23.4.3 Schedule of Submittals**

Shop drawings shall be included on the submittal schedule described in Section 23.1. For each planned shop drawing submittal, define the type and approximate number of drawings or other documents that are included and the planned submittal date, considering the processing requirements herein. Coordinate subsequent submittals with Project Schedule to allow sufficient time for review and re-submittal as necessary.

### **23.4.4 Style, Numbering, and Material of Submittals**

#### **23.4.4.1 Drawings**

The DB Team shall submit the shop drawings electronically in .pdf format on the web-based project management program. In addition to the electronic delivery, the DB Team shall furnish four sets of shop drawings to GDOT for review. Consecutively number each sheet in the submittal series, and indicate the total number in the series (i.e., 1 of 12, 2 of 12, . . . , 12 of 12). Include on each sheet the following items as a minimum requirement: Bridge Number(s), drawing title and number, a title block showing the names of the fabricator or producer and the DB Team for which the work is being done, the initials of the person(s) responsible for the drawing, the date on which the drawing was prepared, the location of the item(s) within the project, the DB Team’s approval stamp with date and initials, and, when applicable, the signature and seal of

the Specialty Engineer. A re-submittal will be requested when any of the required information is not included.

#### ***23.4.4.2 Other Documents***

In addition to electronic delivery in .pdf format on the web-based project management program, the DB Team shall provide four sets of original documents or clearly legible photographic or xerographic copies of documents other than drawings, such as trade literature, catalogue information, calculations, and manuals. Clearly label and number each sheet in the submittal to indicate the total number of sheets in the series (i.e., 1 of 12, 2 of 12, . . . 12 of 12). Provide an additional three sets of documentation for items involved with precast pre-stressed components. Provide an additional two sets of documentation for items involving structural steel components. Bind and submit all documents with a table of contents cover sheet. List on the cover sheet the total number of pages and appendices, and include a title referencing the submittal item(s), the name of the firm and person(s) responsible for the preparation of the document, the DB Team's approval stamp with date and initials, and, when applicable, the signature and seal of the Specialty Engineer. Submit appropriately prepared and checked calculations and manuals that clearly outline the design criteria. Include on the internal sheets the initials of the person(s) responsible for preparing and checking the document. Clearly label trade literature and catalogue information on the front cover with the title, date and name of the firm and person(s) responsible for that document.

#### **23.4.5 Submittals and Copies**

##### ***23.4.5.1 General***

Shop drawings are not required for Qualified Products accepted by GDOT and included on the Qualified Product List as specified in Volume 3 Manuals. For non-Qualified Product, the DB Team will submit shop drawings to GDOT after the EOR has reviewed and accepted for conformance with the DB Documents and compliance to the design intent. Upon completion of GDOT's review, GDOT's red ink review stamp will signify an officially reviewed shop drawing and will state either "Released for Construction" or "Released for Construction as Noted".

##### ***23.4.5.2 DB Team-Originated Design***

Submit shop drawings and applicable calculations to the EOR for review. Ensure that each sheet of the shop drawings and the cover sheet of the calculations are signed and sealed by the Specialty Engineer.

##### ***23.4.5.3 Temporary Works***

For construction affecting public safety, submit to the EOR shop drawings and the applicable calculations for the design of special erection equipment, false-work, scaffolding, etc. Ensure that each sheet of the shop drawings and the cover sheet of the applicable calculations is signed and sealed by the Specialty Engineer.

#### **23.4.5.4 Formwork and Scaffolding**

The DB Team is solely responsible for the safe installation and use of all formwork and scaffolding. GDOT does not require any formwork or scaffolding submittals unless such work would be classified as construction affecting public safety.

#### **23.4.5.5 Other Miscellaneous Design and Structural Details Furnished by the DB Team in Compliance with the Contract**

Submit, to the EOR, shop drawings and the applicable calculations. Ensure that each sheet of the shop drawings and the cover sheet of the applicable calculations is signed and sealed by the Specialty Engineer.

#### **23.4.6 Processing of Shop Drawings**

##### **23.4.6.1 DB Team Responsibility for Accuracy and Coordination of Shop Drawings**

Coordinate, schedule, and control all submittals, with a regard for the required priority, including those of the various subcontractors, suppliers, and GDOTs, to provide for an orderly and balanced distribution of the work. Coordinate, review, date, stamp, accept and sign all shop drawings prepared by the DB Team, Contractors, or DB Team-Related Entities (subcontractor, fabricator, supplier, etc.) prior to submitting them to GDOT for review. Submittal of the drawings confirms verification of the work requirements, units of measurement, field measurements, construction criteria, sequence of assembly and erection, access and clearances, catalog numbers, and other similar data. Indicate on each series of drawings the specification section and page or drawing number of the Released for Construction plans to which the submission applies. Indicate on the shop drawings all changes from the Released for Construction drawings and itemize all changes in the letter of transmittal. Likewise, whenever a submittal conforms to the Released for Construction plans, clearly state so in the transmittal letter. Schedule the submission of shop drawings to allow a GDOT review period as specified in the DB Documents. The review period commences upon GDOT's receipt of the valid submittal or re-submittal and terminates upon the transmittal of the submittal back to the DB Team. The DB Team is discouraged from transmitting voluminous submittals of shop drawings at one time. For submittals transmitted in this manner, allow for additional review time. Only shop drawings distributed by GDOT with the "red ink" stamps are valid and all work that the DB Team performs in advance of GDOT's release of shop drawings will be at the DB Team's risk.

##### **23.4.6.2 Scope of Review by the Engineer of Record**

The EOR's review of the shop drawings is for conformity to the requirements of the DB Documents and to the intent of the design. The EOR's review of shop drawings, which includes means, methods, techniques, sequences, and construction procedures, is limited to the effects on the permanent works. The EOR's review of submittals, which includes means, methods, techniques, sequences, and construction procedures, does

not include an in-depth check for the ability to perform the Work in a safe or efficient manner.

#### ***23.4.6.3 Special Review by the Engineer of Record of Shop Drawings for Construction Affecting Public Safety***

For construction affecting public safety, the EOR will make an independent design review of all relevant shop drawings and similar documents. The DB Team shall not proceed with construction of the permanent works until receiving the EOR's approval. Send a copy of the approval letter to GDOT. The review of these shop drawings is for overall structural adequacy of the item to support the imposed loads and does not include a check for economy, efficiency or ease of construction.

### **23.4.7 Other Requirements for Shop Drawings for Bridges**

#### ***23.4.7.1 Shop Drawings for Structural Steel and Miscellaneous Metals***

Furnish shop drawings for structural steel and miscellaneous metals. Shop drawings shall consist of working, shop, and erection drawings, welding procedures, and other working plans showing details, dimensions, sizes of material, and other information necessary for the complete fabrication and erection of the metal work.

#### ***23.4.7.2 Shop Drawings for Concrete Structures***

Furnish shop drawings for concrete components that are not cast-in-place and are not otherwise exempted from submittal requirements. Also, furnish shop drawings for all details that are required for the effective prosecution of the concrete work and are not included in the DB Documents such as: special erection equipment, masonry layout diagrams, and diagrams for bending reinforcing steel, in addition to any details required for concrete components for the permanent work.

#### ***23.4.7.3 Special Construction Submittals***

In addition to any other requirements, within 60 days from the issuance of the notice to proceed, the DB Team shall submit information to GDOT outlining the plan for integration into the overall approach to the project. Where applicable to the project, include, but do not limit this information to:

- The overall construction program for the duration of the Agreement. Clearly show the milestone dates. (For example, the need to open a structure by a certain time for traffic operations.)
- The overall construction sequence. The order in which individual structures are to be built, the sequence in which individual spans of girders or cantilevers are erected, and the sequence in which spans are to be made continuous. Erection plans and sequence drawings shall be provided for all bridge construction work to be performed on or over railroad ROW as defined in Section 14 of Volume 3.

- The general location of any physical obstacles to construction that might impose restraints or otherwise affect the construction, and an outline of how to deal with such obstacles while building the structure(s). (For example, obstacles might include road, rail and waterway clearances, temporary diversions, transmission lines, utilities, property, and the DB Team's own temporary works, such as haul roads, cofferdams, plant clearances and the like.)
- The approximate location of any special lifting equipment in relation to the structure, including clearances required for the operation of the equipment. (For example, crane positions, operating radii and the like.)
- The approximate location of any temporary falsework, and the conceptual outline of any special erection equipment. Provide the precise locations and details of attachments, fixing devices, loads, etc. in later detailed submittals.
- An outline of the handling, transportation, and storage of fabricated components, such as girders or concrete segments. Provide the precise details in later detailed submittals.
- Any other information pertinent to the proposed scheme or intended approach.
- Clearly and concisely present the above information on as few drawings as possible in order to provide an overall, integrated summary of the intended approach to the project. GDOT will use these drawings for information, review planning, and to assess the DB Team's approach in relation to the intent of the original design. The delivery to and receipt by GDOT does not constitute any GDOT acceptance or approval of the proposals shown thereon. Include the details of such proposals on subsequent detailed shop drawing submittals. Submit timely revisions and re-submittals for all variations from these overall scheme proposals.

#### ***23.4.7.4 Shop Drawings Requiring Railroad Coordination***

GDOT acceptance of shop drawings and submittals involving railroad coordination and review does not constitute final acceptance to begin work on these items. Refer to the requirements of Section 14 for coordination and duration of shop drawing reviews for construction work being performed on or over the ROW of the railroad. Direct coordination between the RUU Group and the railroad will be necessary to ensure that all necessary approvals from the railroad are in place prior to beginning of construction activities in these areas.

#### **23.4.8 Modifications on Construction**

Where GDOT allows the DB Team to make modifications to the permanent works for the purposes of expediting the DB Team's chosen construction methods, the DB Team shall submit proposals to the EOR for review and approval prior to modifying the works. Submit proposals for minor modifications under the shop drawing process. Indicate on all drawings the change(s) from the DB Documents and itemize all Change Requests in the letter of transmittal. GDOT will require additional submittals for major modifications. Minor modifications are those items that, in the opinion of GDOT, do not significantly affect the quantity of measured work, or the integrity or maintainability of the structure or

its components. (For example, adjusting concrete dimensions, substituting steel plate sizes, changing reinforcing bar size and spacing, etc., all within the acceptable limits of the design.) Major modifications are any modifications that, in the opinion of GDOT, significantly affect the quantity of measured work, or the integrity or maintainability of the structure or its components. (For example, substituting alternative beam sizes and spacing's, changing material strength or type, and the like.) Provide signed and sealed revised sheets to GDOT for any required revisions to the Released for Construction plans prior to submitting shop drawings. GDOT's decision on the delineation between a minor and a major modification and the disposition of a proposal is final.

### **23.5 As-Built Plans**

The EOR shall perform a site visit at a minimum of ninety (90) days following NTP 3, and subsequent site visits at a minimum of ninety (90) days thereafter up to Substantial Completion. One of the EOR site visits shall take place at the midpoint of the bridge construction. The purpose of the site visits is for the EOR to visually inspect the progression of the Work for compliance to the RFC Documents. The EOR shall prepare a site observation compliance report to document elements of the work that are compliant with the RFC Documents, and elements of the work that are not compliant with the RFC Documents. If elements of the work are not compliant with the RFC Documents, the EOR shall coordinate with the DB Team to determine corrective action and describe the corrective action in the site observation compliance report. The site observation compliance report shall be submitted within seven (7) days of the site visit, and shall be stamped by the EOR.

Upon completion of the Construction Work, a complete set of As-Built Plans (Record Drawings), organized by Construction Phase shall be provided to GDOT as a condition to Final Acceptance in accordance with Volume 2 Section 23 and in the following formats:

- A CD-ROMs or DVDs containing:
  - All electronic design files, electronic calculations, etc.
  - Full-size 24" x 36" .pdf containing, of each plan sheet and the entire plan set
  - Hard copy of the design databook, and drainage calculations
- Full-size 24" x 36" set of bond prints
- Half-size 11" x 17" or 12" x 18" set of bond prints

These as-built Record Drawings shall not be field sketches or redlines, but shall be CAD generated drawings which compile all field changes, redlines, plan revisions, and all non-conforming work into a single "strike-through" format set of plans. Where appropriate, new drawings may be inserted in to the plans to depict portions of the as-built work.

The DB Team shall be responsible for all production and delivery of materials needed for GDOT review.

All files are to conform to the criteria for the design platform of choice (CAiCE or InRoads) found in the GDOT's Electronic Data Guidelines (EDG), most current version, found at:

<http://www.dot.ga.gov/PS/DesignManuals> .

For toll projects:

The toll and toll-related ITS elements of the as-built Record Drawings shall be provided as a separate sub-set by Construction Phase and include but are not limited to, toll locations, toll-related ITS locations, communication hub, fiber back bone, ground boxes, and toll / toll-related ITS lateral locations which shall be provided to SRTA at turnover. These toll and toll-related ITS element as-built Record Drawings shall also be provided to GDOT as a condition of Final Acceptance. Draft as-built plans shall be provided to GDOT and SRTA for each Toll Location and toll-related ITS location as part of the site turnover process. In addition to the deliverables above, the as-built submittals for toll, toll-related ITS and GDOT ITS shall include an Excel spreadsheet with separate columns for latitude, longitude, station, roadway, device type, manufacturer and model number. Furthermore, linear features shall include a latitude and longitude value for the beginning and end points. Latitude and longitude values shall be accurate to two (2) feet and be in degrees, minutes, and seconds format. GPS points for polygon features (e.g. communication hub can be taken from an edge of the feature).

# Georgia Department of Transportation

## Programmatic Technical Provisions

### For

## Design-Build Agreement

### P.I. No. 110610

## I-85 Widening Project

# VOLUME 3 ATTACHMENTS

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# **Georgia Department of Transportation**

## **Programmatic Technical Provisions**

### **For**

## **Design-Build Agreement**

### **P.I. No. 110610**

## **I-85 Widening Project**

### **Attachment 2-1**

## **FORM OF PAYMENT REQUEST**

Project: \_\_\_\_\_  
SRTA Contract No.: P.I. No. \_\_\_\_\_  
Payment Request Period: \_\_\_\_\_, 20\_\_ through \_\_\_\_\_, 20\_\_

| <b>Payment Request No</b> | <b>Payment Request Amount</b> | <b>Deposit to Designated Account</b> |
|---------------------------|-------------------------------|--------------------------------------|
|                           | \$                            |                                      |
|                           | \$                            |                                      |
|                           | \$                            |                                      |
|                           | \$                            |                                      |
|                           | \$                            |                                      |
|                           | \$                            |                                      |
|                           | \$                            |                                      |
|                           | \$                            |                                      |
|                           | \$                            |                                      |
|                           | \$                            |                                      |
|                           | \$                            |                                      |
|                           | \$                            |                                      |
|                           | \$                            |                                      |
|                           | \$                            |                                      |
|                           | \$                            |                                      |
|                           | \$                            |                                      |
| Total                     | \$                            |                                      |

Total Payment Request Amounts for this Payment Request Period must equal the amount reflected on Line 2(c) below.

| DB Contract Sum and Payment Summary |  |             |           |
|-------------------------------------|--|-------------|-----------|
| 1(a)                                | Original DB Contract Sum   | \$[_____]   |           |
| 1(b)                                | Aggregate adjustments to DB Contract Sum for approved Supplemental Agreements                            | \$[_____]   |           |
| 1(c)                                | Adjusted total DB Contract Sum<br><i>Line 1(a) plus Line 1(b)</i>  |             | \$[_____] |
| 1(d)                                | Aggregate of prior withholding, chargebacks and other amounts due to SRTA, net of subsequent adjustments | (\$[_____]) |           |
| 1(e)                                | Net DB Contract fee before this Payment Request Period (Line 1(c) less Line 1(d))                        |             | \$[_____] |

| Detailed Summary for Payment Request Period |  |           |           |
|---|--|-----------|-----------|
| 2(a)  | Aggregate percentage of Work Complete of Payment Activities for Elements of Work consistent with the Schedule of Values form multiplied by the amount equal to the adjusted DB Contract Sum (1(c)) | \$[_____] |           |
| 2(b)  | Withholdings, chargebacks and other amounts due to SRTA during payment request period  | \$[_____] |           |
| 2(c)  | Total Value of completed Payment Activities less withholdings, chargebacks, and other amounts due to SRTA for this Payment Request Period (Line 2(a) less Line 2(b))                               |           | \$[_____] |
| DB Contract Sum Remaining                   |  |           |           |
| 4(a)  | Net outstanding balance of DB Contract Sum after this Payment Request Period (Line 1(e) less Line 2(c))  |           | \$[_____] |

DB Team hereby certifies that the Completed Payment Activities applicable to this Payment Request No. [XXXX] have been performed to level of completion represented herein.

[DB Team]

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Approved by:

GEORGIA DEPARTMENT OF TRANSPORTATION

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Georgia Department of Transportation**

**Programmatic Technical Provisions**

**For**

**Design-Build Agreement**

**P.I. No. 110610**

**I-85 Widening Project**

**Attachment 2-2**

**DB Team Certification for Payment**

### **DB Team Certification for Payment**

In order to induce the State Road and Tollway Authority (“SRTA”) to make payment as requested by the Payment Request, DB Team hereby certifies, represents and warrants to SRTA, with respect to Payment Request No(s).\_\_\_\_ for the period from \_\_\_\_\_ to \_\_\_\_\_, as follows:

1. Unless otherwise indicated, capitalized terms used herein shall have the meanings set forth in that certain Design, Build Agreement between SRTA and DB Team (the “DB Agreement”).

2. The Work associated with each Payment Activity described in the exhibits and documents attached hereto has been completed to the level represented by this Payment Request and has been fully performed in compliance in all material respects with the requirements of the DB Documents; and the information contained in such exhibits and documents is true, complete and correct in all material respects.

4. The amount specified in the Payment Request has been computed in accordance with, and is due and payable under, the terms and conditions of the DB Agreement, has not been the subject of any previous Payment Request (unless disputed or rejected for payment) and is not the subject of any pending Payment Request from DB Team.

5. No DB Team Default has occurred and is continuing that has not been reported to SRTA.

6. The representations and warranties of DB Team set forth in the DB Agreement are true and correct as of the date of this Payment Request.

7. All Governmental Approvals necessary for the Work that are DB Team’s obligation to obtain pursuant to the DB Documents and to which this Payment Request relates have been secured, except to the extent SRTA and the issuing Governmental Entity have granted a written exception, and there exists no reason to believe that any future Governmental Approvals that are DB Team’s obligation to obtain pursuant to the DB Documents for the Work cannot be secured.

8. Neither DB Team nor any Contractor is barred or suspended from providing goods or services to any local, state or federal agency. Except for any specific subcontractor or Supplier listed as barred or suspended in an attachment hereto, each Subcontractor for the Work has certified in its respective invoice to the DB Team that it is not barred or suspended from providing goods or services to any local, state or federal agency, and to DB Team’s knowledge no Subcontractor has been so barred or suspended.

9. As of the date hereof, the DB Team and all Contractors and Subcontractors, together with all Utility Owners and other third parties engaged or retained by DB Team or such Contractors for performance or supply of Work have been paid all amounts due under their respective contracts or purchase agreements other than, in each case, amounts to be paid pursuant to this Payment Request and amounts in dispute and for

which DB Team has previously given SRTA written notice setting forth in detail the amounts in dispute.

10. Prevailing wages have been paid to all employees of DB Team, the Design-Build Contractor, and all Contractors and Subcontractors in accordance with the rates set forth in the DB Agreement.

11. DB Team and the undersigned making the certifications in connection with the Payment Request acknowledge that GDOT and SRTA shall rely on the certifications and information presented herein and represent and certify that the calculations as set forth in the Payment Request are true and correct as of the date hereof.

12. Also attached hereto are:

(a) A certificate and release signed by the Design-Build Contractor, each other Contractor for Work, and each Subcontractor and Utility Owner or other third party engaged or retained for performance of Work or supply of related services, materials or equipment included in any preceding Payment Request for which DB Team received payment, certifying that it has received payment in full for such services, materials or equipment, except only for amounts in dispute, stating any amounts in dispute, and waiving and releasing any and all claims, liens, or security interests, known or unknown, suspected or unsuspected, arising out of such services, materials or equipment against any person or property whatsoever, including SRTA, GDOT, the State, the Project, any P&P Bond and any letters of credit, except potential claims against retainage (as and to the extent permitted pursuant to the DB Agreement), or letters of credit or certificates of deposit for retainage.

(b) An updated Schedule of Values reflecting the true Work performed.

(d) An “Affidavit of Wages Paid” submitted by the DB Contractor, each Contractor, and each subcontractor, certifying wages paid and compliance with applicable prevailing wage requirements.

[DB TEAM]

By:

\_\_\_\_\_

Name:

\_\_\_\_\_

Title:

\_\_\_\_\_

Date:

\_\_\_\_\_

# **Georgia Department of Transportation**

## **Programmatic Technical Provisions**

### **For**

## **Design-Build Agreement**

### **P.I. No. 110610**

## **I-85 Widening Project**

### **Attachment 4-1**

## **SUPPLEMENTAL SPECIFICATION 107 - LEGAL REGULATIONS AND RESPONSIBILITY TO THE PUBLIC**

**DEPARTMENT OF  
TRANSPORTATION STATE OF  
GEORGIA**

**SUPPLEMENTAL SPECIFICATION**

**Section 107 – Legal Regulations and Responsibility to the  
Public**

---

*Delete Section 107 and Substitute the following:*

**107.01 Laws to Be Observed**

The Contractor shall keep fully informed of all Federal and State laws, all local laws, ordinances, codes, and regulations and all orders and decrees of bodies or tribunals having any jurisdiction or authority, which in any manner affect those engaged or employed on The Work, or which in any way affect the conduct of The Work. The Contractor shall at all times observe and comply with all such laws, ordinances, codes, regulations, orders, decrees, and permits; and shall protect and indemnify the Department and its representatives against any claim or liability arising from or based on the violation of any such law, ordinance, code, regulation, order, decrees, and permits, whether by himself, his employees, subcontractors, or agents.

**107.02 Permits and Licenses**

The Contractor shall procure all permits and licenses, pay all charges, taxes, and fees, and give all notices necessary and incidental to the due and lawful prosecution of The Work.

**107.03 Patented Devices**

If the Contractor employs any design, device, material, or process covered by letters of patent or copyright, he shall provide for such use by suitable legal agreement with the patentee or owner. The Contractor and the Surety shall indemnify and save harmless the Department from any and all claims for infringement by reason of the use of any such patented design, device, material, or process, or any trademark or copyright, and shall indemnify the Department for any costs, expenses, and damages which it may be obliged to pay by reason of any infringement, at any time during the prosecution or after the completion of The Work.

**107.04 Restoration of Surfaces Opened By Permit**

The right to construct or reconstruct any utility service in the highway or street and to grant permits for the same at any time, is expressly reserved by the Department for the proper authorities of the municipality or county in which The Work is done and the Contractor shall not be entitled to any damages either for the digging up of the street or highway, or for any delay occasioned thereby.

Any individual, firm, or corporation wishing to make an opening in the street or highway must secure a permit from the Department. The Contractor shall allow parties bearing such permits, and only those parties, to make openings in the street or highway. When ordered by the Engineer, the Contractor shall make in an acceptable manner all necessary repairs due to such openings and such necessary work will be paid for as Extra Work, or as provided in the Specifications, and will be subject to the same conditions as original work performed.

**107.05 Federal-Aid Provisions**

When the United States Government pays all or any part of the cost of a project, the Federal laws and the rules and regulations made pursuant to such laws must be observed by the Contractor, and The Work shall be subject to the

inspection of the appropriate Federal agency. Such inspection shall in no sense make the Federal Government a party to this Contract and will in no way interfere with the rights of either party hereunder.

### **107.06 Sanitary Provisions**

The Contractor shall provide and maintain in a neat, sanitary condition such accommodations for the use of his employees as may be necessary to comply with the requirements of the State Department of Health and other authorities having jurisdiction, and shall permit no public nuisance.

### **107.07 Public Convenience and Safety**

The Contractor shall at all times so conduct The Work as to assure the least possible obstruction of traffic. The safety and convenience of the general public and the residents along the highway and the protection of persons and property shall be provided for by the Contractor as specified under Subsection 104.05, Subsection 107.09, Section 150, the Project Plans, and Special Provisions.

Traffic whose origin and destination is within the limits of the Project shall be provided ingress and egress at all times unless otherwise specified in the Plans or Special Provisions. The ingress and egress includes entrance and exit via driveways at the various properties, and access to the intersecting roads and streets. The Contractor shall maintain sufficient personnel and equipment on the project at all times, particularly during inclement weather, to ensure that ingress and egress are provided when and where needed.

Two-way traffic shall be maintained at all times unless otherwise specified or approved. The Contractor shall not stop traffic without permission granted by the Engineer.

All equipment used on The Work shall come equipped with factory-installed mufflers, or manufacturer's recommended equivalent, in good condition. These mufflers shall be maintained in good condition throughout the construction period.

### **107.08 Railroad-Highway Provisions**

All work to be performed by the Contractor on a railroad company's right-of-way or property shall be done in a manner satisfactory to the chief engineer of the railroad company, or his authorized representative, and shall be performed at such times and in such manner as not to unnecessarily interfere with the movement of trains or traffic upon the track of the railroad company. The Contractor shall use all reasonable care and precaution in order to avoid accidents, damage, or unnecessary delay or interference with the railroad company's trains or other property, or property of tenants of railroad company.

The Contractor shall notify the railroad company and obtain its approval before commencing work on the railroad company's right-of-way or property.

The Contractor shall determine what measures are required by the railroad company to protect its operations and right-of-way or property during construction. Such protection may include the use of a flagger or flaggers provided by the railroad company. The Contractor shall be responsible for ensuring that the required protection is provided and shall pay the railroad company directly for any and all such services which may be required to accomplish the construction unless otherwise specified.

Any temporary grade crossings or other means needed during construction by the Contractor for transporting materials of any nature and/or equipment across the railroad tracks will be the responsibility of the Contractor to handle directly with the railroad company and bear all costs incidental to such crossings including flagging services provided by the railroad company.

A "Special Provisions for the Protection of Railroad Interests" may be included in the proposal to stipulate insurance and other requirements of the railroad company.

### **107.09 Barricades and Danger, Warning, and Detour Signs**

The Contractor shall furnish, install, and maintain all necessary and required barricades, signs, and other traffic control devices in accordance with these Specifications, Project Plans, Special Provisions, and the MUTCD, and take all necessary precautions for the protection of the work and safety of the public.

Unless otherwise specified, all traffic control devices furnished by the Contractor shall remain the property of the Contractor.

## **107.10 Forest Protection**

In carrying out work within or adjacent to State or National Forests, or any other forests, parks, or other public or private lands, the Contractor shall obtain necessary permits and comply with all of the regulations of the appropriate authorities having jurisdiction over such forest, park, or lands. The Contractor shall keep the areas in an orderly condition, dispose of all refuse, obtain permits for the construction and maintenance of all construction camps, stores, warehouses, residences, latrines, cesspools, septic tanks, and other structures in accordance with the requirements of the appropriate authority.

The Contractor shall take all reasonable precautions to prevent and suppress forest fires and shall require his employees and subcontractors, both independently and at the request of forest officials, to do all reasonably within their power to prevent and suppress and to assist in preventing and suppressing forest fires; to notify a forest official at the earliest possible moment of the location and extent of any fire seen by them; and to extinguish or aid in extinguishing nearby fires.

## **107.11 Construction Over or Adjacent to Navigable Waters**

### **A. Navigation to Be Protected**

Since navigable waterways are under the jurisdiction of the United States Coast Guard and/or the United States Army Corps of Engineers, all work done in, over, on or adjacent to such waters shall comply with their requirements. Free navigation shall not be impeded, and navigable depths shall be maintained.

The Contractor shall comply with permits issued by the United States Coast Guard and/or the United States Army Corps of Engineers, and the Contractor shall obtain and comply with other permits in accordance with the requirements of Subsection 107.02

Special Provisions for environmental protection may be included in the proposal to stipulate environmental commitments and other requirements.

### **B. Obstructions to be Removed**

When the construction has progressed enough to permit removal, all falsework, piling and other obstructions shall be removed to the satisfaction of the Federal agency having jurisdiction. In all cases such clearing must be done thoroughly before The Work will be accepted by the Department.

## **107.12 Use of Explosives**

When the use of explosives is necessary for the prosecution of The Work, the Contractor shall exercise the utmost care not to endanger life or property, and shall obey all State, Federal and other Governmental regulations applying to transportation, storage, use, and control of such explosives. The Contractor shall be completely responsible for any and all damage resulting from the transportation, storage, use, and control of explosives in the prosecution of The Work by the Contractor, the Contractor's agents, or employees; and shall hold the Department harmless from all claims of damages resulting in any manner therefrom.

The Contractor shall notify each public utility owner having structures or other installations, above or below ground, near the site of The Work of his intention to use explosives. Such notice shall be given sufficiently in advance to enable the utility owners to take such steps as they may deem necessary to protect their property from injury. Such notice shall not relieve the Contractor of responsibility for all damages resulting from his blasting operations.

All explosives shall be stored securely in compliance with all laws and ordinances, and all such storage places shall be clearly marked DANGEROUS EXPLOSIVES. Explosives and detonators shall be stored in separate storage facilities in separate areas. Where no laws or ordinances apply, locked storage shall be provided satisfactory to the Engineer, never closer than 1,000 ft (300 m) from any travel-road, building, or camping area.

In all cases where the transport, storage, or use of explosives is undertaken, such activities shall be controlled and directed by fully qualified representatives of the Contractor.

Whenever electric detonators are used, all radio transmitters shall be turned off within a radius of 500 ft (150 m). No blasting supplies shall be transported in vehicles with two-way radio unless the transmitter is turned off, or extra shielding precautions are taken. Appropriate signs shall be placed so as to give ample warning to anyone driving a vehicle equipped with two-way radio. Electrical detonators will not be used within 500 ft (150 m) of a railroad.

Submit a blasting plan to the Engineer a minimum of five working days prior to use of explosives that provides details of the proposed blasting plan, including, but not limited to, the type and amount of explosives, the shot sequence, the description of and distance to the closest inhabitable structure, and other information as requested by the Engineer. Submission of blasting plan does not relieve the contractor of the responsibility for the adequate and safe performance of the blasting.

## **107.13 Protection and Restoration of Property and Landscape**

### **A. General Provisions**

The Contractor shall be responsible for the preservation of all public and private property, crops, fish ponds, trees, monuments, highway signs and markers, fences, grassed and sodded areas, etc. along and adjacent to the highway, and shall use every precaution necessary to prevent damage or injury thereto, unless the removal, alteration, or destruction of such property is provided for under the Contract. The Contractor shall use suitable precaution to prevent damage to all underground structures, whether shown on the Plans or not, and shall protect carefully from disturbance or damage, all land monuments and property marks until the Engineer has witnessed or otherwise referenced their location and shall not move them until directed. The Contractor shall not willfully or maliciously injure or destroy trees or shrubs, and he shall not remove or cut them without proper authority.

The Contractor shall be responsible for all sheet piling, shoring, underpinning, etc., as may be required for the protection of abutting property, nearby buildings, streets, and the like.

The Contractor shall be responsible for all damage or injury to property of any character, during the prosecution of The Work, resulting from any act, omission, neglect, or misconduct in his manner or method of executing The Work, or at any time due to defective work or materials, and said responsibility will not be released until the Project shall have been completed and accepted.

When the Contractor's excavating operations encounter remains of prehistoric people's dwelling sites or artifacts of historical or archeological significance, the operations shall be temporarily discontinued. The Engineer will contact archeological authorities and the Office of Environmental Services to determine the disposition thereof. When directed by the Engineer, the Contractor shall excavate the site in such a manner as to preserve the artifacts encountered and shall remove them for delivery to the custody of the proper authorities. Such excavation will be considered and paid for as Extra Work.

When the Contractor's normal operations are delayed by such stoppage or extra work, an appropriate time extension will be granted.

The Contractor shall plan, coordinate, and prosecute the work so that disruption to personal property and business is held to a practical minimum.

No resident or business shall be denied vehicular access to their property for any length of time other than as determined by the Engineer is absolutely necessary. Where two or more existing driveways are present for a business, only one existing driveway shall be closed at any time. All construction areas abutting lawns and yards of residential or commercial property shall be restored promptly. Backfilling of each drainage structure or section of curb and gutter, sidewalk, or driveway shall be accomplished as soon as adequate strength is obtained. Finishing, dressing, and grassing shall be accomplished immediately thereafter as a continuous operation within each area being constructed with emphasis placed on completing each individual yard or business frontage. Care shall be taken to provide positive drainage to avoid ponding or concentration of runoff.

Handwork, including raking and smoothing, shall be required to ensure that roots, sticks, rocks, and other debris are removed in order to provide a neat and pleasing appearance. Grassing, when in season, shall immediately follow in order to establish permanent cover at the earliest date. If grassing is not in season, proper erosion control shall be installed and maintained.

The work described above shall be in addition to that required by Subsection 104.07, "Final Cleaning Up" and Subsection 105.16, "Final Inspection and Acceptance".

## **B. Erosion and Siltation Control**

The Contractor shall take all necessary measures throughout the life of the Project to control erosion and silting of rivers, streams, and impoundments (lakes, reservoirs, etc.). Construction of drainage facilities as well as performance of other Contract work which will contribute to the control of erosion and siltation shall be carried out in conjunction with clearing and grubbing, and earthwork operations as stipulated in Section 161.

## **C. Pollution**

The Contractor shall exercise every reasonable precaution throughout the life of the Contract to prevent pollution of rivers, streams or impoundments. Pollutants such as chemicals, fuels, lubricants, bitumens, raw sewage and other harmful waste shall not be discharged into or alongside rivers, streams, and impoundments, or into natural or manmade channels leading thereto. The Contractor shall also comply with the applicable regulations of other State and Federal departments and to all governmental statutes relating to the prevention and abatement of pollution.

## **D. Insect Control Regulations**

The Plant Pest Control Division of the U.S. Department of Agriculture and the Georgia State Department of Agriculture restrict the movement of certain items from areas infested with Japanese Beetles or Imported Fire Ants so as to prevent the spread of these pests to non-infested areas. Where insect infested areas are shown on the Plans, Contractors will control their operations in such a manner as to comply fully with the requirements of Section 155.

## **E. Reclamation of Material Pits and Waste Disposal Areas**

Whenever or wherever the Contractor obtains material from a source or wastes material on an area other than within the Right-of-Way, regardless of the fashion, manner or circumstances for which the source or area is obtained, it shall be reclaimed in accordance with the requirements of Section 160.

## **F. Mailboxes**

The property owner shall have the responsibility for removing and relocating the mailbox to an area outside construction limits.

The Engineer will mark a point for the relocation of the box. The stake should be set so that the location of the box will be convenient to both the mail carrier and the patron, yet not interfering with the proposed work. It may be necessary for the Engineer to confer with the Post Office serving the area.

The Contractor shall notify each affected owner, in writing, that their mailbox is in conflict with the proposed construction, that they have ten days to relocate the box and that, after the expiration of the 10 days' notice, if the owner has not relocated the box, it shall be removed by the Contractor and laid upon the owner's property, clear of the Right-of-Way.

Any cost to the Contractor for removing the mailboxes as stated above shall be included in the price bid for other items.

## **G. Failure to Comply**

Failure of the Contractor to comply with any of the above provisions or to install erosion prevention items included in the Contract at the time specified, will be evidence of omission and neglect, and the Contractor will be liable for damages as outlined in Subsection 107.13.H below. Furthermore, the Engineer shall withhold payment on all Contract Items until such time as the Contractor complies in full with all of the aforesaid provisions.

## **H. Payment for Damages**

When or where any direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the Work, or in consequence of the nonexecution thereof by the Contractor, the Contractor shall restore, at his own expense, such property to a condition similar or equal to that existing before such damage or injury was done, by repairing, rebuilding or otherwise restoring as may be directed, or shall make good such damage or injury in an acceptable manner.

## **I. Compensation**

All costs pertaining to any requirement contained herein shall be included in the overall Bid submitted unless such requirement is designated as a separate Pay Item in the Proposal.

## **107.14 Load Restrictions**

It is hereby agreed between the Department and the Contractor that in the performance of The Work under the Contract, the following load restrictions and stipulations shall be in full force and effect during the life of the Contract:

### **A. Parties Affected**

The load restrictions and stipulations contained herein shall be applicable to the equipment of the Contractor; each agent or subcontractor employed by the Contractor; and each person or persons, firm, partnership, corporation or any combination thereof, hauling materials, supplies or equipment to or on the Project, by or for the Contractor.

### **B. Within Project Limits**

No hauling equipment which is loaded beyond those limits provided by State Law shall be permitted on any portion of the new or existing pavement structure except that such loads will be permitted on nonstabilized bases and subbases prior to placing roadway paving subject to the provisions of Subsection 107.17.

Axle loads and gross weight limits will be evaluated in accordance with current Georgia Law.

All damage caused by any equipment to any permanent installation or portion of The Work shall be promptly repaired by the Contractor at his expense. When it becomes necessary to cross existing pavement with excessive loads, the Contractor shall provide and remove, at his own expense, proper cushioning by means of earth blanket or otherwise as directed.

### **C. Outside Project Limits**

All equipment users included in Subsection 107.14.A, above, operating equipment on roads outside the Project limits shall be governed by the following regulations:

1. No vehicle shall carry any load in excess of that specified by Georgia Law.
2. On County System roads the maximum total gross weight shall not exceed 56,000 lbs. (25,400 kg) unless a vehicle is making a pickup or delivery on such roads.
3. For a specific individual trip the above weight limitations may be exceeded provided a special permit is obtained from the Department for each such movement. A special permit will not relieve the Contractor of liability for damage that may result from such a movement. Refer to O.C.G.A §32-6-26 Weight of Vehicle and Load, SB54 (2011) for compliance with weight limitations and exceptions.
4. Authorized personnel of the Department of Public Safety shall be permitted to weigh each truck hauling material to the Project whenever the Department so desires. The owner of each truck shall instruct his operators to cooperate with and assist the truck weighers in every way possible.
5. A Certified Public Weigher operating under the provisions of Standard Operating Procedure 15 shall not dispatch any vehicle loaded with material to be incorporated into the Project when the gross vehicle weight exceeds the limit established by law.
6. Ready Mix Concrete trucks shall comply with load restrictions as specified in Laboratory Standard Operating Procedure 10, "Quality Assurance for Ready-Mixed Concrete Plants in Georgia."

### **D. Responsibilities**

It will be the responsibility of the Contractor to advise his personnel, and all equipment users included in Subsection 107.14.A, as to the load restrictions and stipulations contained herein.

### **E. Excess Loads and Violations**

If multiple violations assignable to a given Certified Public Weigher are occurring, that Certified Public Weigher may be suspended from weighing materials dispatched to Department of Transportation projects.

### **107.15 Responsibility for Damage Claims**

The Contractor shall indemnify and save harmless the Department, its officers and employees, from all suits, actions, or claims of any character brought because of any injuries or damage received or sustained by any person, persons, or property on account of the operations of the said Contractor; or on account of or in consequence of any neglect in safe-guarding The Work; or through use of unacceptable materials in constructing The Work; or because of any act of omission, neglect or misconduct of said Contractor; or because of any claims or amounts recovered from any infringements of patent, trademark, or copyright; or from any claims or amounts arising or recovered under the Workmen's Compensation Act, or any other law, ordinance, order, or decree; and so much of the money due the said Contractor under and by virtue of his Contract as may be considered necessary by the Department for such purpose may be withheld for the use of the State; or, in case no money is due, his surety may be held until such suit or suits, action or actions, claim or claims for injuries or damages as aforesaid shall have been settled and suitable evidence to that effect furnished to the Department; except that money due the Contractor will not be withheld when the Contractor produces satisfactory evidence that he is adequately protected by public liability and property damage insurance.

### **107.16 Opening Sections of Project to Traffic**

Whenever any bridge or section of roadway is in acceptable condition for travel, the Engineer may direct that it be opened to traffic, whether or not the opening was originally provided for, and such opening shall not be held to be in any way an acceptance of the bridge or roadway, or any part thereof, or as a waiver of any of the provisions of the Contract. Necessary repairs or renewals made on any section of the roadway or bridge thus opened to traffic under instructions from the Engineer, due to defective material or work, or to any cause other than ordinary wear and tear, pending completion and acceptance of the roadway, bridge, or other work, shall be done by the Contractor, without additional compensation. Also, the Contractor shall not receive additional compensation for completing the Work except as specified in Subsection 104.03.

If the Contractor is dilatory in completing shoulders, drainage structures, or other features of work, the Engineer may so notify him in writing and establish therein a reasonable period of time in which the Work should be completed. If the Contractor is dilatory, or fails to make a reasonable effort toward completion in this period of time, the Engineer may then order all or a portion of the Project opened to traffic. On such sections which are so ordered to be opened, the Contractor shall conduct the remainder of his construction operations so as to cause the least obstruction to traffic and shall not receive any added compensation due to the added cost of the Work by reason of opening such section to traffic.

On any section opened to traffic under any of the above conditions, whether stated in the Special Provisions or opened by necessity of Contractor's operations, or unforeseen necessity, any damage to the highway not attributable to traffic which might occur on such section (except slides) shall be repaired by the Contractor at his expense. The removal of slides shall be done by the Contractor on a basis agreed to prior to the removal of such slides.

### **107.17 Contractor's Responsibility for the Work**

From the first day the Contractor begins work, or from the date Contract Time commences, whichever occurs first, until written final acceptance of the project by the Engineer, the Contractor shall have the charge and care thereof and shall take every precaution against injury or damage to any part thereof by the action of the elements or from any other cause, whether arising from the execution or from the non-execution of The Work. The Contractor shall rebuild, repair, restore, and make good all injuries or damages to any portion of The Work occasioned by any of the above causes before final acceptance and shall bear the expense thereof except that the Department may, in its discretion, reimburse the Contractor for the repair of damage to The Work due to unforeseeable causes beyond the control of and without the fault or negligence of the Contractor, including but not restricted to acts of God, of the public enemy or of governmental authorities. The Contractor's responsibility for damages and injuries is defined in Subsection 104.05.A.

In case of suspension of work from any cause whatsoever, the Contractor shall be responsible for the Project and shall take such precautions as may be necessary to prevent damage to the Project, provide for normal drainage and shall erect any necessary temporary structures, signs, or other facilities at his expense.

### **107.18 Acquisition of Right-of-Way**

Rights of Way for the project will be obtained by the Department, in coordination with local governments and others. However, the Contractor's access to the portions of the right-of-way may be restricted. Where such

restrictions are known in advance to the Department they will be listed in the bid proposal. Delays to the progress of the Work may be encountered because of restricted access to portions of the right-of-way. When such delays occur, whether caused by restrictions listed in the bid proposal or restrictions that develop after the Contract is signed, the parties agree in executing the Contract that such delays do not constitute breach of the Contract. Delays in availability of right-of-way beyond those listed in the bid proposal, or that develop after the Contract has been signed, that impact the controlling Item or Items of the Work will not be charged against the Contract Time. Additional compensation for such delays shall not be paid, except as provided in Subsection 105.13, "Claims for Adjustments and Disputes," or Subsection 109.09, "Termination Clause." In the event the Department is unable to acquire right-of-way needed for the project, resulting in delay to or termination of the project, such situation will also be controlled by this Section, and will not constitute a breach of the Contract by the Department.

### **107.19 Personal Liability of Public Officials**

In carrying out any of the provisions of the Contract or in exercising any power or authority granted to the Board, Commissioner, Chief Engineer, their agents and employees, by the Contract, there shall be no liability, either personally or as officials or representatives of the Department, it being understood that in all such matters they act solely as agents and representatives of the Department.

### **107.20 No Waiver of Legal Rights**

Upon completion of The Work, the Department will expeditiously make final inspection and notify the Contractor of acceptance. Such final acceptance, however, shall not preclude or estop the Department from correcting any measurement, estimate, or certificate made before or after completion of The Work, nor shall the Department be precluded or estopped from recovering from the Contractor or his Surety, or both, such over-payment as it may sustain, or by failure on the part of the Contractor to fulfill his obligations under the Contract. A waiver on the part of the Department of any breach of any part of the Contract shall not be held to be a waiver of any other or subsequent breach.

The Contractor, without prejudice to the terms of the Contract, shall be liable to the Department for latent defects, fraud, or such gross mistakes as may amount to fraud, or as regards the Department's rights under any warranty or guaranty.

### **107.21 General Description**

The Contractor shall designate, prior to beginning any work, a Worksite Utility Coordination Supervisor (WUCS) who shall be responsible for initiating and conducting utility coordination meetings and accurately recording and reporting the progress of utility relocations and adjustment work. Also, the WUCS shall prepare an Emergency Response Plan for the purpose of planning, training, and communicating among the agencies responding to the emergency. The WUCS shall be the primary point of contact between all of the Utility companies, the Contractor and the Department. The WUCS shall recommend the rate of recurrence for utility coordination meetings and the Engineer will have the final decision on the regularity for utility coordination meetings. In no case will utility coordination meetings occur less than monthly until controlling items of utility relocations and adjustment milestones are completed. The WUCS shall contact each of the utility companies for the purpose of obtaining information including, but not limited to, a Utility Adjustment Schedule for the controlling items of utility relocations and adjustments. The WUCS shall notify the appropriate utility company and/or utility subcontractors and the Department of the status of controlling items of relocations and adjustment milestones as they are completed. The WUCS shall furnish the Engineer, for approval, a Progress Schedule Chart, immediately following the receipt of the Notice to Proceed unless otherwise specified, which includes the utility companies controlling items of work and other information in accordance with Section 108.03 or elsewhere in the Contract documents.

#### **A. Qualifications**

The WUCS shall be an employee of the Prime Contractor, shall have at least one year experience directly related to highway and utility construction in a supervisory capacity and have a complete understanding of the Georgia Utilities Protection Center operations, and shall be knowledgeable of the High-voltage Safety Act and shall be trained on the Georgia Utility Facility Protection Act (GUFPA). The Department does not provide any training on GUFPA but will maintain a list of the Georgia Public Service Commission certified training programs developed by other agencies. Currently the following companies offer approved GUFPA training programs:

Associated Damage Consultants  
Phone: 706.234.8218 or 706.853.1362  
Georgia Utility Contractors Association  
Phone: 404.362.9995

Georgia Utilities Protection Center  
Phone: 678.291.0631 or 404.375.6209  
H B Training & Consulting  
Phone: 706.619.1669 or 877.442.4282 (Toll Free)

The Prime Contractor is responsible for obtaining the GUFPA training for their employees.  
Questions concerning the Georgia Public Service Commission GUFPA training program should be directed to:

Georgia Public Service Commission  
244 Washington St. SW  
Atlanta, GA 30334-5701  
404.463.9784

#### **B. Ticket Status**

During the utility coordination meetings the WUCS shall collect and maintain the Ticket Status information to determine the status of all locate requests within the project limits. This information will be used to assure those planning to use mechanized equipment to excavate or work within the project limits are prepared to begin work when they have reported or estimated beginning work. At points where the Contractor's or utility company's operations are adjacent to or conflict with overhead or underground utility facilities, or are adjacent to other property, damage to which might result in considerable expense, loss, or inconvenience, work shall not commence until all arrangements necessary for the protection thereof have been made.

#### **C. Notice**

The names of known utility companies and the location of known utility facilities will be shown on the Plans, or listed in the Subsurface Utility Engineering Investigation if performed or in the Special Provisions; and the WUCS shall give 24-hour notice to such utility companies before commencing work adjacent to said utility facilities which may result in damage thereto. The WUCS shall further notify utility companies of any changes in the Contractor's work schedules affecting required action by the utility company to protect or adjust their facilities. Notice to the utility companies by the Department of the Award of Contract, under Subsection 105.06, shall not be deemed to satisfy the notice required by this paragraph. Furthermore, this 24-hour notice shall not satisfy or fulfill the requirements of the Contractor as stated in Chapter 9 of Title 25 of the Official Code of Georgia Annotated, known as the "Georgia Utility Facility Protection Act".

#### **D. Agenda**

The WUCS shall cooperate with the companies of any underground or overhead utility facilities in their removal and relocations or adjustment work in order that these operations may progress in a reasonable manner, that duplication of their removal and relocations or adjustment work may be reduced to a minimum, and services rendered by those parties will not be unnecessarily interrupted. To promote this effort the WUCS shall prepare an agenda for the utility coordination meetings and circulate same in advance of the meeting to encourage input and participation from all of the utility companies. The agenda will be prepared by an examination of the project site and may include photographs of potential/actual utility conflicts.

#### **E. Emergency Response Plan**

The WUCS shall prepare an Emergency Utility Response Plan (EURP) within 30 days following the receipt of the Notice to Proceed. The EURP shall indicate the project location (which includes street address and or major intersections / major highway route, if possible with a land mark) that would be reported in case of an emergency, WUCS, Emergency Utility Coordinator (EUC), utility company name, utility company emergency contact information to include but not limited to emergency phone number, response time for emergency, working condition of devices needed to facilitate prompt shut off, and primary point of contact name and phone number for the project.

Emergency Utility Coordinator (EUC) shall be an employee of the Prime Contractor and shall notify the appropriate utility company and/or utility subcontractors in case of an emergency. EURP must include the contact details of the EUC, if WUCS is not the primary emergency utility coordinator for this project.

The plan will also include a means of reporting emergencies and the Utility Emergency Response Information for each company. The WUCS/EUC shall post the EURP in an area readily accessible to the Department and project personnel. Also, WUCS shall distribute the copies of EURP by e-mail and hard copy to GA DOT Area Engineer, GA DOT Construction Project Engineer, Contractor's project manager, superintendent, and all approved subcontractors whose work can be in conflict with utilities facilities, personnel of the each facility/owner/ operator who has facilities within the project limits and keep a copy in close proximity to active construction.

In the event of interruption to gas, water or other utility services as a result of accidental breakage or as a result of being exposed or unsupported, the WUCS/EUC shall promptly notify the appropriate emergency officials, the Georgia Utilities Protection Center and the appropriate utility facility company or operator, if known. Until such time as the damage has been repaired, no person shall engage in excavating or blasting activities that may cause further damage to the utility facility.

In order to keep up with the latest / most updated EURP contact information (name and phone numbers); WUCS shall include an item in the agenda of Utility Coordination meeting about the updates / changes in the EURP plan.

The Emergency Utility Response Plan and Emergency Utility Response Information template can be found at the State of Georgia, Office of Utilities Webpage.

#### **F. Submission**

Provisions for reporting all utility coordination meetings, the progress of utility relocation and adjustment work milestones and ticket status information will be reported on a form developed by the WUCS and will be distributed by the WUCS to all of the utility companies as milestones are met and shall be included as part of the project records. These reports shall be delivered to the Engineer for review, on a monthly basis. The WUCS shall immediately report to the Engineer any delay between the utility relocation and adjustment work, the existing Utility Adjustment Schedule, or the proposed Utility Adjustment Schedule so that these differences can be reconciled.

#### **G. Delays**

Delays and interruptions to the controlling Item or Items of The Work caused by the adjustment or repair of water, gas, or other utility appurtenances and property may be considered for an extension of Contract Time as provided in Subsection 108.07.E unless such delays are due to the negligence of the Contractor.

#### **H. Facilities Supported on Bridges**

If the utility facilities are to be supported on bridges, the following provisions shall apply:

1. The Plans will show the location of the facility and the auxiliary items necessary to support the facility.
2. The Contractor constructing the bridge shall install anchor bolts, thimbles, inserts, or other auxiliary items attached to the bridge as a part of the support for the utility facility. The Utility Company shall furnish these auxiliary items, unless the Contract indicates these items are to be furnished by the Contractor as a part of the bridge construction.
3. The Utility or its subcontractor constructing the utility facility shall install hanger rods, pipe rollers, and other attachments necessary for the support of the utility facility as indicated on the Plans. The Utility Company shall furnish these attachments at no cost to the Department or the prime contractor unless otherwise specified. This work shall also include:
  - a. Caulking the openings around the utility where it passes through endwalls to prevent the passage of undesirable materials.
  - b. Painting the exposed portions of utility supports unless such supports are corrosion resistant. Painting shall be done in accordance with the applicable portions of Section 535, unless otherwise specified.
4. The sequence of bridge construction work may be set forth in the Plans and/or the Special Provisions and will show at what stage of the Work a utility company will be allowed to make the utility installation. Further, all or any portion of The Work under Subsection 107.21.H.3 may be included in the bridge Contract by the Plans and/or the Special Provisions.

5. Any damage to the bridge structure caused by the utility installation shall be repaired to the satisfaction of the Engineer at the expense of the Utility or its subcontractor installing the utility facility.

#### **I. Clearances**

The Plans provide for at least minimum clearance of utilities as required by the National Electrical Safety Code, U.S. Department of Commerce, and National Bureau of Standards. Any additional clearance the Contractor may desire or require in performing The Work shall be arranged by the Contractor with the utility company. The Department will pay no extra compensation for such additional clearances.

#### **J. Utility Relocation Progress Schedule**

The purpose of the Utility Adjustment Schedule is to provide the Contractor with the pertinent information, including any utility staging required, dependent activities, or joint-use coordination that is required for the creation of a feasible progress schedule. A suitable Utility Adjustment Schedule form is available from the Department for the WUCS to circulate to utility companies for any proposed project construction staging or should a utility company not duly file a Utility Adjustment Schedule to the Department during the preconstruction phase of the project. The WUCS shall submit a Utility Relocation Progress Schedule showing together the Progress Schedule Chart referenced in Section 108.03 and the proposed Utility Adjustment Schedules from all utility companies to the Engineer for review and approval. Copies of existing Utility Adjustment Schedules with utility companies having facilities on this project will be made available at the Georgia Department of Transportation, Office of Construction Bidding Administration, located at One Georgia Center, 600 West Peachtree Street, NW, Atlanta, GA 30308, for examination by the Contractor. The Utility Adjustment Schedules are available on-line at: [www.dot.ga.gov/partner\\_smart/contractors/bidding\\_letting/bidx/default.aspx](http://www.dot.ga.gov/partner_smart/contractors/bidding_letting/bidx/default.aspx)

#### **K. Compensation**

There will be no separate measurement or payment for this Work. The cost associated with this Work shall be included in the overall Bid submitted.

### **107.22 Hazardous and/or Toxic Waste**

When the Contractor's operations encounter or expose any abnormal condition which may indicate the presence of a hazardous and/or toxic waste, such operations shall be discontinued in the vicinity of the abnormal condition and the Engineer shall be notified immediately. The presence of barrels, discolored earth, metal, wood, or visible fumes, abnormal odors, excessively hot earth, smoke, or anything else which appears abnormal may be indicators of hazardous and/or toxic wastes and shall be treated with extraordinary caution as they are evidence of abnormal conditions.

The Contractor's operations shall not resume until so directed by the Engineer.

Disposition of the hazardous and/or toxic waste will be made in accordance with the requirements and regulations of the Department of Human Resources and the Department of Natural Resources. Where the Contractor performs work necessary to dispose of hazardous and/or toxic waste, payment will be made at the unit prices for pay items included in the contract which are applicable to such work or, where the contract does not include such pay items, payment will be as provided in Subsection 109.05, "Extra Work."

### **107.23 Environmental Considerations**

#### **A. Construction**

Erosion control measures shall be installed, to the greatest practical extent, prior to clearing and grubbing. Particular care shall be exercised along stream buffers, wetlands, open waters and other sensitive areas to ensure that these areas are not adversely affected.

Construction equipment shall not cross streams, rivers, or other waterways except at temporary stream crossing structures shown on the plans or as allowed by permit.

Construction activities within wetland areas are prohibited except for those within the construction limits as shown on the Plans and as specified in Subsection 107.23.E.

All sediment control devices (except sediment basins) installed on a project shall, as a minimum, be cleaned of sediment when one half the capacity, by height, depth or volume, has been reached. Sediment basins shall be cleaned of sediment when one-third the capacity by volume has been reached.

## **B. Bridge Construction Over Waterways**

Construction waste or debris, from bridge construction or demolition, shall be prevented from being allowed to fall or be placed into wetlands, streams, rivers or lakes.

Excavation, dewatering, and cleaning of cofferdams shall be performed in such a manner as to prevent siltation. Pumping from cofferdams to a settling basin or a containment unit will be required if deemed necessary by the Engineer.

Operations required within rivers or streams, i.e. jetting or spudding, shall be performed within silt containment areas, cofferdams, silt fence, sediment barriers or other devices to minimize migration of silt off the project.

## **C. Environmental Clearance of Local Material or Disposal Sites**

Specific written environmental approval from the Engineer will be required for any local material or disposal sites not included in the Plans. No work shall be started at any potential local material or waste site not shown on the plans prior to receiving said environmental approval from the Engineer. Local material sites are defined as borrow pits, common borrow, base, embankment, sand clay base, topsoil base, soil cement base, granular embankment, asphalt sand, maintenance pits, or stockpiled borrow sources. Disposal sites, as defined in Standard Specification 201.3.05.E.3, may be defined as excess material, common fill, or inert waste.

The Contractor may obtain environmental approval on a site with one of two methods: 1) GDOT provided environmental surveys or 2) environmental surveys obtained by the Contractor at no cost to the Department. The Contractor must choose one method for review and approvals, which will apply to all sites required for a given project, and submit an Environmental Review Notification indicating their chosen method.

1. If the Contractor chooses to obtain their own environmental surveys, they shall be conducted by a consultant(s) prequalified to work with the Department in the following area classes: 1.06(b) – History; 1.06(e) – Ecology; and 1.06(f) – Archaeology. Background research and field methods shall be conducted in accordance with the Office of Environmental Services Environmental Procedures Manual, with documentation in an Environmental Survey Results Memorandum (template available from the Office of Environmental Services).
2. If the Contractor requests that GDOT conduct required environmental surveys, an Environmental Survey Request shall be submitted for each site (template available from the Office of Environmental Services).

Upon receipt of an Environmental Survey Request, the Office of Environmental Services shall provide environmental approval or denial within thirty (30) business days. Upon receipt of an Environmental Survey Results Memorandum, the Office of Environmental Services shall provide environmental approval or denial within ten (10) business days. The Department will not accept requests for review of sites before a Notice to Proceed is issued. Incomplete Survey Requests, surveys that are not conducted by a GDOT prequalified consultant, or surveys that do not meet the required level of field effort or documentation, will be denied by GDOT OES and may require resubmittal.

The Engineer will inform the Contractor in writing as to the approval or denial of environmental clearance. Approvals may be provided upon condition that an Environmentally Sensitive Area (ESA) be designated within or adjacent to the site prior to use. All ESA stipulations shall be adhered to in accordance with Standard Specification 107.23.F. If a site is denied, the Contractor may, at no expense to the Department, seek to obtain permits or pursue other remedies that might otherwise render the site(s) acceptable, if available. Any and all changes to proposed sites or their associated haul roads that are not included within the original Environmental Survey Request or Environmental Survey Results Memorandum, including expansion,

utilization for purposes other than those indicated in the original submittal, etc. must be submitted for further environmental review and approval prior to use.

Sites included in the Plans have environmental clearance and shall be used only for the purpose(s) specified in the Plans or other contract documents. Should the Contractor wish to expand or utilize said sites for any purpose other than that provided for in the Plans or other contract documents, specific written environmental clearance as noted above shall be obtained.

#### **D. Control of Pollutants**

Pollutants or potentially hazardous materials, such as fuels, lubricants, lead paint, chemicals or batteries, shall be transported, stored, and used in a manner to prevent leakage or spillage into the environment. The Contractor shall also be responsible for proper and legal disposal of all such materials.

Equipment, especially concrete or asphalt trucks, shall not be washed or cleaned-out on the Project except in areas where unused product contaminants can be prevented from entering waterways.

#### **E. Temporary Work in Wetlands Outside of the Construction Limits within the Right-of-Way and Easement Areas**

Temporary work in wetlands (that are not delineated with orange barrier fence) will be subject to the following requirements:

1. Temporary work in wetlands shall be accomplished by using temporary structures, timber, concrete, soil with geotextile fabric, or other suitable matting. The area shall not be grubbed.
2. Soil matting shall be protected from erosion in accordance with the Specifications.
3. Whenever temporary work is required in Saltwater Marsh Wetlands, all temporary structures and/or matting shall be removed in their entirety prior to Final Acceptance of the Project. Matted and compressed soils shall be backfilled to their original ground elevation with material meeting the requirements of Section 212 – Granular Embankment.
4. Whenever temporary work is required in Freshwater Wetlands, all temporary structures and/or matting (exclusive of soil matting to be retained in the final roadway section) shall be removed in their entirety prior to Final Acceptance of the Project.  
Once the temporary materials have been removed, the area shall be covered by Excelsior or Straw blankets according to Section 713 of the Specifications. The grassing and ground preparation referenced in Subsection 713.3.03, "Preparation", will not be applicable to this Work.
5. The Engineer shall be notified so that a field inspection may be conducted to certify that the temporary materials were properly removed and that the area was properly restored. The Contractor shall be responsible for any corrective action required to complete this Work.
6. There will be no separate measurement or payment for this Work. The cost associated with this work shall be included in the overall Bid submitted.

#### **F. Environmentally Sensitive Areas**

Some archaeological sites, historic sites, wetlands, streams, stream and pond buffers, open waters and protected animal and plant species habitat within the existing/required Right-of-Way and easement areas may be designated as ENVIRONMENTALLY SENSITIVE AREAS (ESAs). These areas are shown on the applicable Plan sheets and labeled "ESA" (e.g. ESA – Historical Boundary, ESA – Wetland Boundary). The Department may require that some ESAs or portions thereof be delineated with orange barrier fence. The Contractor shall install, maintain, and replace as necessary orange barrier fence at ESAs as delineated in the Plan sheets.

The Contractor shall not enter, disturb, or perform any construction related activities, other than those shown on the approved plan sheets within areas designated as ESAs including ESAs or portions thereof not delineated with orange barrier fence. This includes but is not limited to the following construction activities: clearing and grubbing; borrowing; wasting; grading; filling; staging/stockpiling; vehicular use and parking;

sediment basin placement; trailer placement; and equipment cleaning and storage. Also, all archaeological sites, historic sites, wetlands, streams, stream and pond buffers, open waters, and protected animal and plant species habitat that extend beyond the limits of existing/required Right-of-Way and easement areas shall be considered ESAs and the Contractor shall not perform any construction related activities (such as those listed above) within these areas or make agreements with property owners to occupy these areas for construction related activities (such as those listed above). The Contractor shall make all construction employees aware of the location(s) of each ESA and the requirement to not enter or otherwise disturb these areas.

If the Contractor is found to have entered an ESA, either within or outside the project area, for any purpose not specifically shown on the approved plan sheets, the Department may, at its discretion, issue a stop work order for all activities on the project except erosion control and traffic control until such time as all equipment and other items are removed and the ESA is restored to its original condition.

However, should damage to an ESA occur as a result of the Contractor's action in violation of this section, and notwithstanding any subsequent correction by the Contractor, the Contractor shall be liable for any cost arising from such action, including but not limited to, the cost of repair, remediation of any fines, or mitigation fees assessed against the Department by another government entity.

## **G. Protection of Migratory Birds and Bats**

The following conditions are intended as a minimum to protect migratory birds and bats during construction activities.

1. Project personnel shall be advised about the potential presence and appearance of federally protected migratory birds, including the barn swallow (*Hirundo rustica*), cliff swallow (*Petrochelidon pyrrhonota*), and eastern phoebe (*Sayornis phoebe*), and that there are civil and criminal penalties for harassing, harming, pursuing, hunting, shooting, wounding, killing, capturing, or collecting these species in violation of the Migratory Bird Treaty Act of 1918. The law protects adults, fledglings, nestlings, eggs, and active nests. All bats are protected under Georgia state law (Official Code of Georgia § 27-1-28), with some species protected under the federal Endangered Species Act of 1973. Pictures and habitat information shall be posted in a conspicuous location in the Project field office until such time that construction has been completed and time charges have stopped.
2. The demolition of existing bridge and culvert, the extension of existing culvert, and bridge maintenance activities on the underside of the bridge deck shall take place outside of the breeding and nesting season of phoebes, swallows and other migratory birds, which begins April 1 and extends through August 31, unless exclusionary barriers are put in place to prevent birds from nesting. For bridges, exclusionary barriers may be made of plastic, canvas or other materials proposed by the Contractor and approved by the State Environmental Administrator prior to installation. For box culverts, exclusionary barriers may be overlapping strips of flexible plastic (also called "PVC Strip Doors" or "Strip Curtains") or an alternate material proposed by the Contractor and approved by the State Environmental Administrator prior to installation. Exclusionary barriers must be installed on the bridge(s) and/or box culvert(s) prior to March 1 or after August 31, but in no time in between this period. Exclusionary barriers are not a guaranteed method of preventing migratory birds from nesting beneath bridges and work schedules shall take into account the possibility that barriers will not be successful. If exclusionary barriers are to be used, these steps shall be followed:
  - a. The Project ecologist shall be notified by phone (404) 631-1100 of the decision to install exclusionary barriers and the date of the proposed installation prior to the installation of any exclusionary devices.
  - b. The structure(s) shall be checked for nests prior to the placement of exclusionary barriers. If nests are present, they shall be inspected to ensure that eggs or birds are not present. If the nests are found to be occupied, construction activities associated with the bridge shall be postponed until after August 31 when the breeding season is complete.

- c. For any box culvert(s) being replaced, exclusionary barriers shall be installed on both the inlet and outlet openings. For any box culvert(s) being extended, exclusionary barriers shall be placed on the opening(s) (inlet and/or outlet) where work is taking place. For bridge(s) being removed, barriers shall be installed along the full length of the bridge(s). In all cases, barriers shall be installed prior to March 1 and left in place until August 31 or until the culvert removal, culvert extension, or bridge demolition is complete. If the exclusionary barriers fail to prevent nesting (i.e., birds are able to bypass barriers and build nests), construction activities associated with the bridge shall be postponed until after August 31.
  - d. During construction activities, exclusionary barriers shall be inspected daily for holes or other defects that impair its ability to exclude migratory birds from nesting beneath the bridge. Any holes or defects shall be repaired immediately.
  - e. Entanglement and/or entrapment of barn swallows, cliff swallows, and eastern phoebes in exclusionary netting constitutes harm to migratory birds. Any entanglement and/or entrapment of migratory birds shall be reported immediately to the Project Engineer, who in turn will notify the State Environmental Administrator, Georgia Department of Transportation, Office of Environmental Services at (404) 631-1101.
- 3. Migratory birds may nest in other structures or natural features that will be impacted by construction activities. If active nests containing eggs are encountered within the footprint of construction activities, the finding shall be reported immediately to the Project Engineer, who in turn shall notify the State Environmental Administrator, Georgia Department of Transportation, Office of Environmental Services at (404) 631-1101. All activity within 50 feet of active nests shall cease pending consultation by the Department with the U. S. Fish and Wildlife Service and the lead Federal Agency.
  - 4. When working on bridges and culverts, sightings of bat species shall be reported immediately to the Project Engineer who in turn will notify the State Environmental Administrator, Georgia Department of Transportation, Office of Environmental Services at (404) 631-1101. All construction activity on the structure shall cease pending consultation by the Department with the U. S. Fish and Wildlife Service and/or the Georgia Department of Natural Resources and/or the lead Federal Agency. The Department will inform the Contractor of any changes to the project.
  - 5. In the event any incident occurs that causes harm or injury to migratory birds during construction activities, the incident shall be reported immediately to the Project Engineer who in turn shall notify the State Environmental Administrator, Georgia Department of Transportation, Office of Environmental Services at (404) 631-1101. All activity shall cease pending consultation by the Department with the U. S. Fish and Wildlife Service and the lead Federal Agency.
  - 6. Within 30 days of the completion of construction and the stopping of time charges, a report shall be provided to the State Environmental Administrator, Georgia Department of Transportation, Office of Environmental Services, 600 West Peachtree Street NW, Atlanta, Georgia 30308. GDOT in turn will provide copies of the report to the U.S. Fish and Wildlife Service, the Georgia Department of Natural Resources Wildlife Resources Division, and the lead Federal Agency. The following information will be included in the report:
    - a. Contractor name and address.
    - b. Name and title of report preparer.
    - c. GDOT Project Identification (PI) number.
    - d. County(s) in which project is located.
    - e. Project description.

- f. Construction start and end dates.
  - g. Date GDOT was notified of intent to install barrier(s) per # 107.23G.2.a.
  - h. Number and type(s) of structures on which exclusion barriers were installed.
  - i. Type(s) of exclusion material used on each structure.
  - j. Start and end date(s) of installation of exclusionary barrier on each structure.
  - k. Start and end date(s) of removal of exclusionary barrier from each structure.
  - l. Photographs of each structure before and after exclusionary barrier installation.
  - m. Statement regarding whether the exclusionary barrier was effective in deterring bird use of the structure during construction.
  - n. Description of any incidents causing harm or injury to migratory birds during construction. This should include incidents that were reported as required under 107.23G.5.
  - o. Description of any sightings of bat species when working on bridges and culverts. This should include incidents that were reported as required under 107.23G.4.
7. All costs pertaining to any requirement contained herein shall be included in the overall bid submitted unless such requirement is designated as a separate Pay Item in the Proposal.

## **107.24 Closing of Roadways without On-Site Detours**

When existing roadways are to be closed to through traffic and on-site detours are not provided, the Contractor shall submit a written notice to the Engineer for approval 14 days prior to the closure of the existing roadways.

After receiving approval from the Engineer for the closure, the Contractor shall install signs at each closure site, in accordance with the MUTCD, to inform the traveling public of the proposed closure, including the date of closure. The sign shall be placed 5 days prior to the closure, at the direction of the Engineer.

Prior to the closure, the Area Engineer will inform local government officials and agencies, local news media, and the DOT Public Information Office of the proposed closure of the roadways.

## **107.25 Disruption to Residential and Commercial Property**

The Contractor shall plan, coordinate, and prosecute the work such that disruption to personal property and business is held to a practical minimum.

All construction areas abutting lawns and yards of residential or commercial property shall be restored promptly. Backfilling of each drainage structure or section of curb and gutter, sidewalk, or driveway shall be accomplished as soon as adequate strength is obtained. Finishing, dressing and grassing shall be accomplished immediately thereafter as a continuous operation within each area being constructed with emphasis placed on completing each individual yard or business frontage. Care shall be taken to provide positive drainage to avoid ponding or concentration of runoff.

Handwork, including raking and smoothing, shall be required to ensure that roots, sticks, rocks, and other debris is removed in order to provide a neat and pleasing appearance. Grassing, when in season, shall immediately follow in order to establish permanent cover at the earliest date. If grassing is not in season, proper erosion control shall be installed and maintained.

The work described herein shall be in addition to that required by Subsection 104.07 "Final Cleaning Up" and Subsection 105.16 "Final Inspection and Acceptance."

# **Georgia Department of Transportation**

## **Programmatic Technical Provisions**

### **For**

## **Design-Build Agreement**

### **P.I. No. 110610**

## **I-85 Widening Project**

### **Attachment 12-1**

## **Supplemental Specification 156 – GPS Specifications for Conveyance Structures GIS Mapping**

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA  
SPECIAL PROVISION**

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**Section 156— GPS Specifications for Conveyance Structures GIS Mapping**

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*Delete Section 156 and substitute the following:*

**156.1 General Description**

Perform the items of this work according to this Specification. This work includes:

- Collecting sub-meter locations and attributes for all stormwater structures, inlets, outlets, and conveyance means (excluding curb and gutter) within the project limits.
- Compiling, processing, and submitting the GIS data in accordance with the Department's policies and guidelines.
- Maintaining quality control and quality assurance while performing the work.

**156.1.01 Definitions**

General Provisions 101 through 150

**156.1.02 Related References**

**A. Standard Specifications**

General Provisions 101 through 150

**B. Referenced Documents**

GDOT Policy: 8075-1-Database Design and Modeling

GDOT Policy: 8075-5-Metadata Registry

GDOT Policy: 8085-1- Geospatial Data Policy

GDOT Policy: 8085-2- GPS Data Collection Policy

**156.1.03 Submittals**

General Provisions 101 through 150

**156.2 Materials**

General Provisions 101 through 150

**156.3 Construction Requirements**

General Provisions 101 through 150

**156.3.01 Personnel**

Furnish qualified personnel capable of performing the work in accordance with the Department's above-stated policies and procedures.

## Section 156— GPS Specifications for Conveyance Structures GIS Mapping

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### 156.3.02 Accuracy

Ensure that data will be accurate within 1 yard (1 meter) horizontally for all assets. Collect and process data in accordance with the Department's Policies and Procedures.

### 156.3.03 Coordinate System

Submit the data to the Department in accordance with GDOT Policy 8085-1- Geospatial Data Policy and Standards.

### 156.3.06 Data Submittal

Provide data in ESRI ArcGIS 10.2 or newer file-based geodatabase format.

### 156.3.04 Format

Provide data in ESRI ArcGIS 10.2 or newer file-based geodatabase format.

### 156.3.05 Schema and Metadata

Provide all the data in compliance with database schema, metadata, and required fields files located at the following URL:  
[http://www.dot.ga.gov/PartnerSmart/DesignManuals/OtherResources/GIS\\_Inventory.zip](http://www.dot.ga.gov/PartnerSmart/DesignManuals/OtherResources/GIS_Inventory.zip)

### 156.3.06 Data Submittal

The data shall be submitted to the Engineer no later than the final inspection. All electronic file deliverables shall include the PI number and "MS4" in the file name.

## 156.4 Measurement

This work will not be measured separately for payment.

## 156.5 Payment

This contract item completed and accepted will be paid at the Lump Sum Price bid, and the payment will be full compensation for all work completed as specified in this Section.

Payment will be made under:

|              |                                   |              |
|--------------|-----------------------------------|--------------|
| Item No. 156 | GPS Data Collection and Submittal | Per Lump Sum |
|--------------|-----------------------------------|--------------|

# **Georgia Department of Transportation**

## **Programmatic Technical Provisions**

### **For**

## **Design-Build Agreement**

### **P.I. No. 110610**

## **I-85 Widening Project**

### **Attachment 12-2**

## **MS4 Responsibility Matrix 2017-2022**

## MS4 Responsibilities for P.I. No. 110610 – I-85 Widening – Design-Build Project

| 2017-2022 Permit No. GAR041 000 Ref. | Best Management Practice (BMP)  | Activity Description   | Design-Build Team | GDOT | PMC | 3 <sup>rd</sup> Party |
|--------------------------------------|---|--|-------------------|------|-----|-----------------------|
| <b>4.2.1</b>                         | <b>Public Education</b>   |  |                   |      |     |                       |
| 4.2.1-1                              | DOT website to educate the public regarding stormwater related topics (e.g. litter prevention, Adopt-A-Highway)   | N/A  |                   | ✓    |     |                       |
| 4.2.1-2                              | Training program to educate contractors and employees conducting activities that may impact stormwater runoff   | Attend periodic training related to stormwater impacts including Construction Engineering & Inspection for Post-Construction BMPs (CEI) course, Facility Stormwater Pollution Prevention (F-SWPP) and Overview of Post-Construction Stormwater (O-PCS).  | ✓                 | ✓    | ✓   | ✓                     |
| 4.2.1-3                              | Distribution of stormwater related educational materials to the public  | N/A  |                   | ✓    |     |                       |
| 4.2.1-4                              | Storm draining marking, and/or pet waste program in high pedestrian areas, such as welcome centers / rest areas, maintenance facilities, and along streets with sidewalks within a permitted area | N/A  |                   | ✓    |     |                       |
| <b>4.2.2</b>                         | <b>Public Involvement</b>   |  |                   |      |     |                       |
| 4.2.2-1                              | Adopt-A-Highway Program   | N/A  |                   | ✓    |     |                       |
| 4.2.2-2                              | Public Information Open Houses (PIOHs) to allow public input into projects  | Conduct all appropriate public information open houses as applicable. As part of each public information open house, contact GDOT Office of Design Policy to ensure that a Stormwater Management Program display is provided and displayed at the open house. Provide the number of open houses conducted each year.   | ✓                 |      |     |                       |
| 4.2.2-3                              | Memorandum of Agreements  | N/A  |                   | ✓    |     |                       |
| <b>4.2.3</b>                         | <b>Illicit Discharge Detection and Elimination</b>  |  |                   |      |     |                       |
| 4.2.3-1                              | Outfall Map and Inventory   | Provide a list of new outfalls within the project area indicating the location and geographic coordinates for each outfall. Provide all information per SP 156.  | ✓                 |      |     |                       |
| 4.2.3-2                              | A policy that prohibits non-stormwater discharges into the MS4  | N/A  |                   | ✓    |     |                       |
| 4.2.3-3                              | An Illicit Discharge Detection and Elimination (IDDE) Plan  | Conduct inspections outfalls within the project area each year inspecting the outfalls for the presence of dry weather discharges in accordance with the IDDE plan. For a copy of the IDDE plan, contact the GDOT Office of Design Policy. Provide a copy of the inspection reports (see the IDDE plan) for each outfall inspected. If a dry weather discharge is detected, contact the District Environmental Compliance Engineer for further investigation / action. |                   | ✓    |     |                       |
| 4.2.3-4                              | Procedures for tracing and eliminating any identified illicit discharges  | N/A  |                   | ✓    |     |                       |

| 2017-2022 Permit No. GAR041 000 Ref. | Best Management Practice (BMP)  | Activity Description   | Design-Build Team | GDOT | PMC | 3 <sup>rd</sup> Party |
|--------------------------------------|---|--|-------------------|------|-----|-----------------------|
| 4.2.3-5                              | Education   | N/A  |                   | ✓    |     |                       |
| 4.2.3-6                              | Procedures for receiving and responding to complaints related to illicit discharges   | Report all complaints related to illicit discharges to the District Environmental Compliance Engineer. Provide a summary of the number of complaints and summary of resolution including the date and time received each year for the project area to GDOT.  |                   | ✓    |     |                       |
| 4.2.3-7                              | Spill response procedures   | Report all spills in accordance with the IDDE plan and the Georgia Oil or Hazardous Material Spills and Releases Reporting. If a spill occurs and the spill reaches an MS4 structure, report the spill to the District Environmental Compliance Engineer.  | ✓                 |      |     |                       |
| <b>4.2.4</b>                         | <b>Construction Site Runoff Stormwater Control</b>  |  |                   |      |     |                       |
| 4.2.4-1                              | A contractual obligation mechanism  | Requires erosion and sediment controls consistent with the Manual for Erosion and Sediment Control in Georgia and the Construction General Permits, as well as penalties to ensure compliance, to the extent allowable, under State or local law.  | ✓                 |      |     |                       |
| 4.2.4-2                              | Erosion, Sedimentation and Pollution Control Plans (ESPCPs)   | Prepare and submit to EPD an ESPCP that complies with the requirements of the most recent Construction Activity Permits, which identify the Manual for Erosion and Sediment Control in Georgia (Green Book) and stream buffer requirements for all land disturbance activities that require coverage.        | ✓                 |      |     |                       |
| 4.2.4-3                              | Procedures for receiving and responding to erosion and sedimentation complaints   | Report all complaints related to construction site runoff to the District Environmental Compliance Engineer. Provide a summary of the number of complaints and summary of resolution including the date and time received each year for the project area to GDOT.  | ✓                 |      |     |                       |
| 4.2.4-4                              | Site plan review procedures   | Incorporate consideration of potential water quality impacts.  | ✓                 |      |     |                       |
| 4.2.4-5                              | Site inspection procedures in accordance with the Construction Activity Permits   | Maintain inspections as required in the most recent Construction Activity Permits, which identify the Manual for Erosion and Sediment Control in Georgia (Green Book) and stream buffer requirements for all land disturbance activities that require coverage. Provide a copy of all inspections performed. | ✓                 |      |     |                       |
| 4.2.4-6                              | Ensure through contracts or other mechanisms that construction site operators control waste that may cause adverse water quality impacts in accordance with the Construction Activity Permits |  | ✓                 |      | ✓   | ✓                     |
| 4.2.4-7                              | Procedures for bringing contractors back into compliance with the contract requirements   | N/A  |                   |      | ✓   | ✓                     |
| <b>4.2.5</b>                         | <b>Post-Construction Stormwater Management</b>  |  |                   |      |     |                       |
| 4.2.5-1                              | Inventory of post-construction stormwater management structures, designed for filtering and/or detention  | Provide an inventory of all permanent Post Construction Stormwater management structures following GDOT acceptance utilizing SP 156 for required data to be provided on each structure.  | ✓                 |      |     |                       |

| 2017-2022 Permit No. GAR041 000 Ref. | Best Management Practice (BMP)  | Activity Description   | Design-Build Team | GDOT | PMC | 3 <sup>rd</sup> Party |
|--------------------------------------|---|--|-------------------|------|-----|-----------------------|
| 4.2.5-2                              | Policy or other regulatory mechanism to address post-construction runoff  | N/A  |                   | ✓    |     |                       |
| 4.2.5-3                              | Program for the long-term operation and maintenance of post-construction structures   | Inspect and maintain Post Construction Stormwater management structures within the project area utilizing the inspection forms in the current effective GDOT Stormwater System Inspection & Maintenance (I&M) Manual. Report all maintenance performed on each structure utilizing GDOT Maintenance Activity Codes.  | ✓                 |      |     |                       |
| 4.2.5-4                              | Program for ensuring the use of a stormwater design manual and the feasibility of inclusion of the post-construction standards from Section 4.2.5.1 during the project design phase | Submit and secure approval of a Post Construction Stormwater Report for all applicable construction projects within the project area following the specifications in the most current GDOT Drainage Manual.  | ✓                 |      |     |                       |
| 4.2.5.4                              | Green Infrastructure / Low Impact Development   |  |                   |      |     |                       |
| 4.2.5.4-1                            | Program for conducting a green infrastructure / low impact development (GI/LID) feasibility study, and implementing GI/LID infrastructure, where feasible                           | Submit and secure approval of a Post Construction Stormwater Report for all applicable construction projects within the project area following the specifications in the most current GDOT Drainage Manual.  | ✓                 |      |     |                       |
| 4.2.6                                | Pollution Prevention / Good Housekeeping for Municipal-Type Operations  |  |                   |      |     |                       |
| 4.2.6-1                              | Inventory of GDOT facilities conducting municipal-type activities that have the potential to cause pollutant runoff   | N/A  |                   | ✓    |     |                       |
| 4.2.6-2                              | Program for inspecting the GDOT facilities for good housekeeping practices  | Perform inspections on 20% of all GDOT accepted facilities annually utilizing the F-SWPPP such that all facilities are inspected over the course of 5 years.   |                   | ✓    |     |                       |
| 4.2.6-3                              | Manual detailing procedures for routine maintenance activities at municipal type operations to prevent pollutant runoff   | Provide an annual copy of inspections and corrective actions implemented for each GDOT accepted facility utilizing the F-SWPPP for guidance.   |                   | ✓    |     |                       |
| 4.2.6-4                              | Inventory and Map of MS4 structures   | Provide an inventory of all MS4 structures following GDOT acceptance utilizing SP 156 for required data to be provided on each structure.  | ✓                 |      |     |                       |
| 4.2.6-5                              | Program for inspecting and maintaining MS4 structures   | Perform inspections on 10% of all GDOT MS4 structures within the project area annually utilizing the GDOT Stormwater System Inspection & Maintenance Manual such that all structures are inspected over the course of 5 years. Report all maintenance performed on each structure utilizing GDOT Maintenance Activity Codes.                               |                   | ✓    |     |                       |
| 4.2.6-6                              | An employee training program, with the purpose of preventing and reducing stormwater pollution from GDOT facilities and activities  | All field personnel with supervisory capacity assigned to the project must have attended a GDOT F-SWPP training course within 5 years of the contract date of the project. For those personnel that have not attended the training course within the previous 5 years, the training course must be completed within 6 months of assignment to the project. | ✓                 |      |     |                       |

| 2017-2022 Permit No. GAR041 000 Ref. | Best Management Practice (BMP)  | Activity Description  | Design-Build Team | GDOT | PMC | 3 <sup>rd</sup> Party |
|--------------------------------------|---|---|-------------------|------|-----|-----------------------|
| 4.2.6-7                              | Procedures for receiving and responding to complaints related to MS4 structures | Report all complaints related to runoff / pollution from GDOT accepted facilities within the project area to the District Environmental Compliance Engineer. Provide a summary of the number of complaints and summary of resolution including the date and time received each year for the project area to GDOT. |                   | ✓    |     |                       |

### Reporting:

GDOT's NPDES Phase II MS4 permit requires that an annual report be submitted each year documenting compliance with all aspects of the permit from January 1<sup>st</sup> to December 31<sup>st</sup> (reporting period). To aid in that reporting, the contractor shall submit quarterly update reports documenting those activities undertaken during the reporting period as required in the matrix above. The deadlines for each update report shall be established as shown below:

| Quarter | Dates   | Quarterly Update Report Due Date |
|---------|---|----------------------------------|
| Q1      | January 1 <sup>st</sup> – March 31 <sup>st</sup>    | April 30 <sup>th</sup>           |
| Q2      | April 1 <sup>st</sup> – June 30 <sup>th</sup>       | July 31 <sup>st</sup>            |
| Q3      | July 1 <sup>st</sup> – September 30 <sup>th</sup>   | October 31 <sup>st</sup>         |
| Q4      | October 1 <sup>st</sup> – December 31 <sup>st</sup> | January 31 <sup>st</sup>         |

# **Georgia Department of Transportation Programmatic Technical Provisions**

**I-85 Widening  
Design-Build Project  
P.I. No. 110610**

**VOLUME 3 MANUALS  
(Technical Documents)**

## Volume 3 Manuals (Technical Documents)

All Work shall conform with all applicable Manuals and Guidelines developed for and including AASHTO, FHWA, GDOT, and additional requirements stated in this document and reasonably inferred therefrom. It is the Design-Build Teams responsibility to verify order of the precedence of any State or Federal manual requirement where any potential conflict may exist. The Design-Build Team shall coordinate with the appropriate State and/or Federal agency to confirm the policy and regulations to avoid any conflict of the following manuals prior to design and/or construction. Following is a list of manuals and guidelines that shall be used, in the performance of Work provided that the Work shall not be governed solely by such manuals and guidelines listed herein, and provided further that it is the Design-Build Team's responsibility to locate and utilize the most current edition at the time of the RFP advertisement, including updates, of all such referenced materials for the Work required.

1. AASHTO – A Policy on Geometric Design of Highways and Streets  
[https://bookstore.transportation.org/collection\\_detail.aspx?ID=110](https://bookstore.transportation.org/collection_detail.aspx?ID=110)
2. AASHTO – Guide for High-Occupancy Vehicle Facilities  
[https://bookstore.transportation.org/Item\\_details.aspx?id=114](https://bookstore.transportation.org/Item_details.aspx?id=114)
3. AASHTO – Standard Specification for Structural Supports for Highway Signs, Luminaires and Traffic Signals (LTS-6)  
[https://bookstore.transportation.org/collection\\_detail.aspx?ID=126](https://bookstore.transportation.org/collection_detail.aspx?ID=126)
4. AASHTO – Roadside Design Guide  
[https://bookstore.transportation.org/item\\_details.aspx?ID=1807](https://bookstore.transportation.org/item_details.aspx?ID=1807)
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[https://bookstore.transportation.org/item\\_details.aspx?ID=1412](https://bookstore.transportation.org/item_details.aspx?ID=1412)
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[https://bookstore.transportation.org/Item\\_details.aspx?id=51](https://bookstore.transportation.org/Item_details.aspx?id=51)
7. AASHTO – AASHTO LRFD Bridge Construction Specifications, 6<sup>th</sup> Edition  
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8. AASHTO – Manual for Bridge Evaluation, 2<sup>nd</sup> Edition, with 2011 Interim Revisions  
[https://bookstore.transportation.org/item\\_details.aspx?ID=1809](https://bookstore.transportation.org/item_details.aspx?ID=1809)
9. AASHTO – Guide Specification for Structural Design Sound Barrier  
[https://bookstore.transportation.org/item\\_details.aspx?ID=1155](https://bookstore.transportation.org/item_details.aspx?ID=1155)
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[http://www.fhwa.dot.gov/environment/noise/construction\\_noise/rcnm/index.cfm](http://www.fhwa.dot.gov/environment/noise/construction_noise/rcnm/index.cfm)
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<http://www.ies.org/store/product/roadway-lighting-ansiies-rp814-1350.cfm>
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18. GDOT – Signing and Marking Design Guidelines  
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19. GDOT – Utility Accommodation Policy and Standards Manual  
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20. GDOT - Geotechnical Engineering Manual and Guidelines  
<http://www.dot.ga.gov/PS/Materials>
21. GDOT – STI (Sampling, Testing and Inspection) Quick Guide and Documents  
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22. GDOT – Qualified Products List (QPL)  
<http://www.dot.ga.gov/PS/Materials/QPL>
23. GDOT – Pavement Design Manual  
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24. GDOT – Manual on Drainage Design for Highways  
<http://www.dot.ga.gov/PS/DesignManuals/DesignGuides>
25. GDOT – Automated Survey Manual  
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26. GDOT – Regulations for Driveway and Encroachment Control  
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27. GDOT – Electronic Data Guidelines  
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28. GDOT – Plan Development Process  
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29. GDOT – Plan Presentation Guide  
<http://www.dot.ga.gov/PS/DesignManuals>
30. GDOT – Preliminary Field Plan Review Checklist  
<http://www.dot.ga.gov/PS/DesignManuals/DesignResources>
31. GDOT – Final Field Plan Review Checklist  
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32. GDOT – Design Policy Manual  
<http://www.dot.ga.gov/PS/DesignManuals/DesignGuides>
33. GDOT – ITS Design Manual  
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34. GDOT – NPDES General Permit Guidance  
<http://www.dot.ga.gov/PS/DesignManuals/DesignGuides>
35. GDOT – LRFD Bridge and Structure Design Manual  
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36. GDOT – Environmental Procedures Manual  
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37. GDOT – Standard Specifications, Construction of Transportation Systems  
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39. GDOT – Construction Standards and Details  
[http://standarddetails.dot.ga.gov/stds\\_dtls/](http://standarddetails.dot.ga.gov/stds_dtls/)
40. GDOT – Right of Way Manual  
<http://www.dot.ga.gov/PartnerSmart/DesignManuals/ROW/00ExternalRightofWayManual.pdf>
41. GDOT – Acquisition Guide for Local Public Agencies  
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48. FHWA Mitigation Strategies for Design Exceptions  
[http://safety.fhwa.dot.gov/geometric/pubs/mitigationstrategies/fhwa\\_sa\\_07011.pdf](http://safety.fhwa.dot.gov/geometric/pubs/mitigationstrategies/fhwa_sa_07011.pdf)
49. FHWA Traffic Monitoring Guide  
<http://www.fhwa.dot.gov/ohim/tmgbook.pdf>

50. Occupational Safety and Health Administration Standards (OSHA)  
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[http://standards.ieee.org/nesc/nesc\\_preprint.html](http://standards.ieee.org/nesc/nesc_preprint.html)
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<http://www.epa.gov/lawsregs/>
53. GDOT – Public Information Policy Manual
54. American Railway Engineering and Maintenance-of-Way Association (AREMA)  
<https://www.arema.org/>
55. GDOT – Work Zone Safety and Mobility Policy  
<http://www.dot.ga.gov/PartnerSmart/Training/Documents/WZS/WorkZoneSafety/images/WorkZoneSafetyandMobilityPolicyRevwiithsubpartK.DOCX>
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<http://www.dot.ga.gov/PartnerSmart/Business/Source/Pages/ConstructionSpecs.aspx>
65. Other manuals, documents, procedures and standards as referenced in the DB Documents