TECHNICAL PROPOSAL

Georgia Department of Transportation

Submitted By:

C.W.M. CONTRACTING Co.

in association with

INFRASTRUCTURE CONSULTING & ENGINEERING

I-285 at SR 141 (Peachtree Industrial Boulevard) Interchange Improvement Project

P.I. No. 0017126

DeKalb County, GA

February 18, 2021

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C.2 PROJECT DIFFERENCES FROM REFERENCE INFORMATION DOCUMENTS (RIDs)

Schematic Plans Detailing Differences* ..... Following p. 6

**The CWM / ICE Team does not propose to design and construct P.I. No. 0017126 materially different from the Reference Information Documents. However, a schematic has been included illustrating the optimizations the CWM / ICE Team proposes to utilize on the subject Project.*

C.1 TECHNICAL PROPOSAL

C.1.1. Construction Staging and Traffic Management Narrative

C.1.1. (a) Construction Phasing Approach | Effectively managing the volume of traffic exiting I-285 Westbound to Peachtree Industrial Boulevard (PIB) northbound and southbound onto temporary ramps and then shifting to the permanent alignment will present challenges well within the management capabilities and traffic management expertise and experience of the C.W. Matthews Contracting Company and Infrastructure Consulting Engineering Team (CWM / ICE Team). Traffic management and other challenges present in a project of this nature will be mitigated utilizing the strategies outlined below:

PROJECT CHALLENGES		
#	SIGNIFICANT KNOWN AND ANTICIPATED PROJECT CHALLENGES	ADDRESSING THE CHALLENGE
1	**Construction of the Bridge No. 1 Intermediate Bent in the Median of PIB**	The intermediate bent construction area is severely restricted with limited hours available for lane closures. The CWM / ICE Team optimized the costing plans and designed a single hammer head intermediate bent with one rectangle footing to minimize the construction footprint on PIB reducing the number of production shifts and lane closures required for foundation installation.
2	**Transition of New SB Ramp Traffic to the New Configuration**	The geometry of the southbound Ramp to PIB was optimized to reduce construction conflicts while transitioning traffic from the current merge to PIB southbound to the new right hand turn movement.
3	**Impacted Utilities on Flowers Road**	The CWM / ICE Team has extensive experience managing utility relocations. Early coordination with utility owners reveals the extensive impacts this Project includes. With early coordination our Team understands the problems this Project presents and will pursue utility relocations as an early work package to eliminate schedule risk.
4	**Coordination with Adjacent Projects**	Our Team has experience with coordinating Design-Build projects with other adjacent / ongoing projects. Our Team will provide constant and reliable communication and provide updates as soon as changes occur that may impact the adjacent projects. In addition, the Project and schedule information will be reliable and will accurately relay the most current information available. Significant changes will be discussed well in advance so all parties can plan accordingly.
5	**Constructing Grade Changes Along Existing Alignments**	Geometric changes were incorporated to allow for construction of proposed ramps / roadways to allow for grade changes to occur to meet design criteria and to minimize the amount of temporary work required.

Success of the construction phasing plan is based on working in as many concurrent areas as practical utilizing the extensive local resources of the CWM / ICE Team with design packages advanced by stage. The planning for construction staging placed emphasis on careful analysis of the scope to avoid conflicts such as: pavement transitions and drainage from stage to stage. The schedule on urban projects, such as this, is often controlled by utility coordination and relocation. This Project has significant utility impacts for a project of its size and the CWM / ICE Team's full time utility management staff has performed early coordination with all facility owners, developing specific solutions for identified conflicts. The detailed Construction Phasing and Staging Plan, aligned with the project schedule and coordinated with the Traffic Control Plan, will be based on the phasing described below:

CONSTRUCTION PHASE 1A

1. Install all advance warning signs and traffic control devices for Stage 1 construction.
2. Mitigate utility conflicts on Flowers Road to facilitate widening construction.

CONSTRUCTION PHASE 1B

1. Shift Flowers Road lanes, construct permanent widening, retaining walls, and then shift traffic to new alignment.
2. Implement Phase 1 Traffic Control Plan for closing northbound (NB) ramp access to Flowers Road.
3. Close access to Flowers Road, close NB ramp crosswalk, install temporary shoring and construct PIB NB Temporary Ramp.
4. Construct Bridge No. 1 intermediate bent.
5. Begin construction of temporary PIB southbound (SB) ramp outside of existing traffic.
6. Construct the Colonial Pipeline gap encasing to facilitate SB ramp Bridge No. 1 tie-in construction.

CONSTRUCTION PHASE 2

1. Complete construction of temporary ramp to PIB southbound.
2. Implement Phase 2 Traffic Control Plan and shift traffic to temporary NB and SB ramps.
3. Construct new NB and SB ramps, drainage systems, overhead sign structures and complete Bridge No 1.

CONSTRUCTION PHASE 3

1. Construct new PIB SB exit ramp tie-ins and approach slabs to Bridge No.1.
2. Shift traffic to the new NB and SB ramps, install traffic control devices, and shift I-285 Westbound to facilitate widening construction.
3. Construct I-285 widening and retaining wall construction.

C.1.1. (b) Approach to Minimizing Impacts and User Distraction | The Project's scope of work includes shifting exiting traffic from I-285 westbound onto two temporary ramps and then shifting again to the permanent alignment, shifting traffic on Flowers Road, and a detour of one direction of PIB for beam erection. With this number of traffic shifts during the course of the Project, effective notification and outreach to the traveling public, first responders, and City of Doraville and a robust Traffic Management Plan (TMP) will be critical to success of the Project. The CWM / ICE Team's goal will be to construct as much of the Project as possible during off peak hours utilizing the allowable lane closures.

The CWM / ICE Team's approach to traffic management includes:

- ***Organization of a Traffic Management Project Development Group (PDG)***: This step began early in the procurement and will continue after NTP 1 with inclusion of GDOT for developing the project specific framework for the TMP and specific solutions for the Traffic Control Plan (TCP).
- ***Development of the Traffic Management Plan (TMP) Submitted within 120 Days of NTP 1:*** The TMP will 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 PIB during beam erection.
- ***Development of a Traffic Control Plan (TCP) for Each Phase of Construction:*** These detailed plans will be developed in accordance with the *Manual of Traffic Control Devices* (MUTCD), AASHTO's *Roadside Design Guide*, GDOT Special Provision 150 – Traffic Control, and the Technical Provisions.
- ***Development of a GDOT-DB Team Communications Plan within 30 Days of NTP 1:*** This plan will supplement GDOT's public outreach program developing specific strategies for outreach to users' groups for early notification of changing traffic movements.

Sequence of Construction: The primary objective of the sequence of construction will be to safely move the traveling public through the Project with minimal delays. The Construction Phasing and Staging Plan will meet these objectives and will also address specific project challenges such as:

- Limited Lane Closures
- Alignment Shifts of Traffic to Temporary Ramps
- Detour of PIB for Beam Erection
- Ingress and Egress Points for Construction Activities Minimizing the Impact to Motorists, Businesses, and Residents in the Project Corridor

The CWM / ICE Team will install a small laydown area in the infield of one of the ramps which will include the GDOT field office. To reduce impacts to motorists, real time material deliveries will be scheduled to limit the use of the laydown areas.

C.1.1. (c) Approach to Safety and Congestion Mitigation Measures | The basis of the CMW / ICE Team's approach to safety will be the comprehensive Safety Plan developed in accordance with the Project Management Plan (PMP) outlining the policies and procedure for worksite controls, security, and incident response plans. CMW's internal Safety Plan developed from many years of "lessons learned," promotes a continuing emphasis on mitigating the day to day, ever changing jobsite hazard risks as well as safety training and accident prevention. CWM's past experience demonstrates the success of the safety program is based on active management engagement ensuring "ownership" of the program by all levels of participants supported by a policy of accountability.

Conflicts at transition points where vehicles and trucks interact will be minimized by strategically planning access points with clear signing of these locations including Changeable Message Signs (CMS) signs advising drivers of trucks entering and exiting the travel lanes. Entrance and exit points to the work areas will be protected with impact attenuators and constructed with an aggregate surface to assist trucks in maintaining speed. The CWM / ICE Team will develop optimized temporary profiles and alignments to provide smooth and consistent transitions between temporary and existing and/or permanent pavement, while designing traffic shifts to allow for the maximum practical lane and shoulder widths.

During the construction phase, the CWM / ICE Team will maintain the Project in accordance with the Maintenance Management Plan with appropriate resources to ensure pavement, signs, and striping are maintained to a level providing the traveling public safe passage through the Project limits.

C.1.2. Project Management Approach

The CWM / ICE Team's approach to management of the I-285 at SR 141 Project will be guided by the Project Management Plan (PMP). Many years of CWM / ICE collaboration on successful delivery of GDOT Design-Build projects provides the framework for a seamless transition through each phase of the Project integrating team members into the Design-Build delivery process as appropriate (shown in Figure 1).

Kyle Marchman, PE, Lead Contractor Project Manager and ***Peter Graf, PE, Lead Design Consultant Project Manager***, will guide the CWM / ICE Team and utilize the PMP to address design and construction in an integrated manner from NTP 1 through Final Acceptance. Mr. Marchman has been involved in numerous Design-Build projects and has the authority and understands the importance of making decisions quickly, as needed. He also has the authority to employ internal or external resources as needed to meet the Contract goals and expectations.

Mr. Graf's role as Lead Design Consultant Project Manager and Engineer of Record gives the Team continuity and a unified flow of project specific knowledge between GDOT project management, the design team, construction team, and quality assurance / quality control team.

The Team's past success on Design-Build projects has shown early and effective communication and transparency among all stakeholders promotes sharing of information that results in a cohesive design and construction plan. The CWM / ICE Team supports the Project Meetings as outlined in the RFP's Project Management requirements. In addition to the regularly scheduled meetings, an effective communication plan among the CWM / ICE Team and GDOT is important in maintaining design consistency, quality, and schedule.

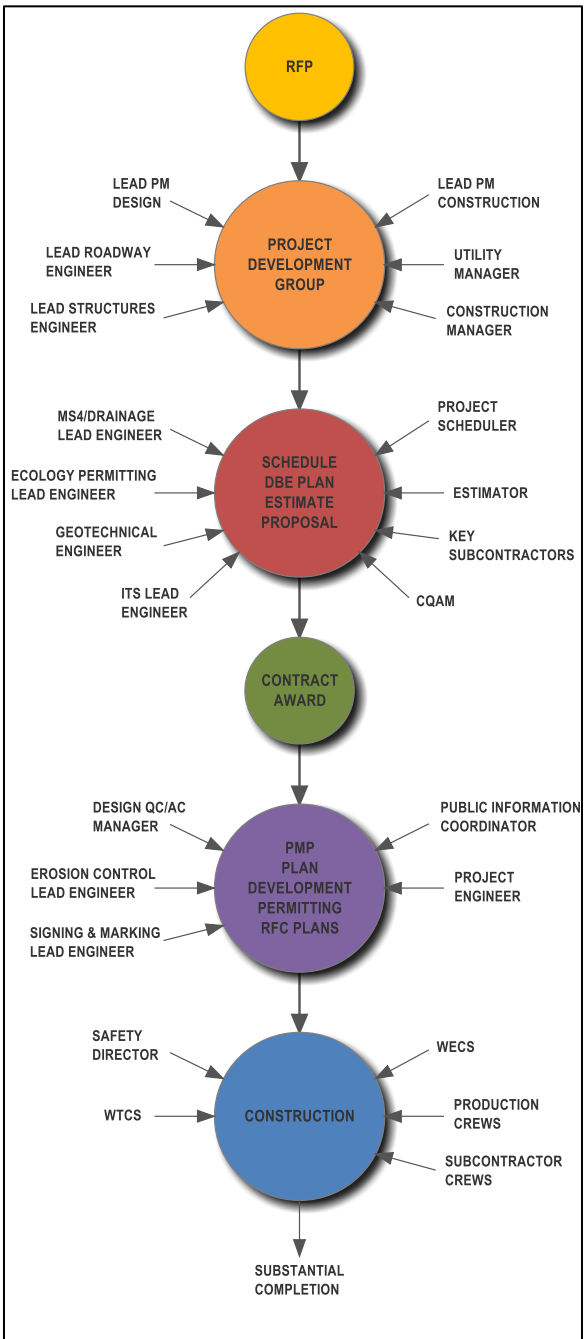
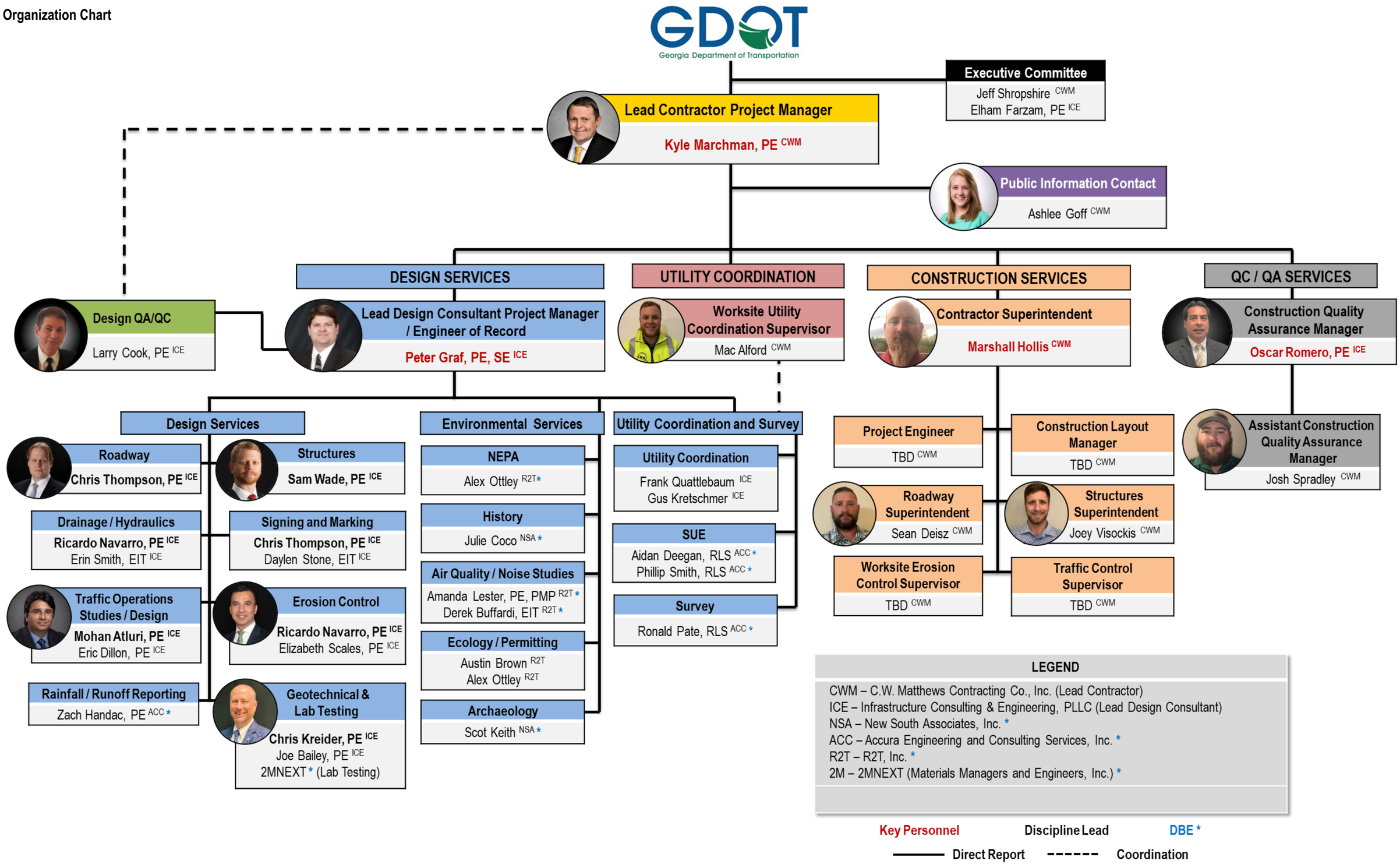


FIGURE 1

Organization Chart



C.1.3. Proposal Schedule

C. W. Matthews Contracting Co., Inc.

Proposal Schedule

Submitted: February 18, 2021
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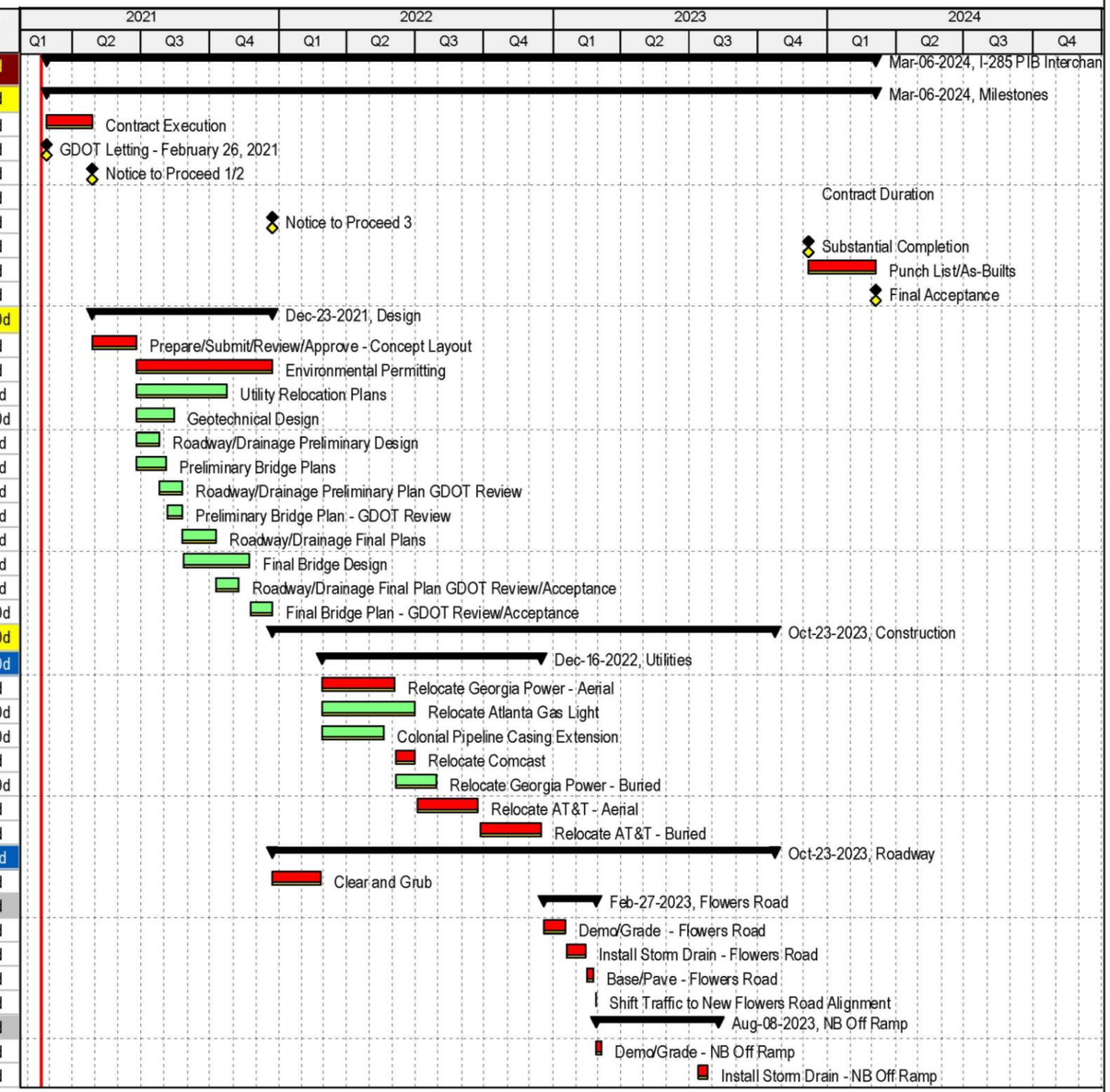
Activity ID	Activity Name	Planned Duration	Start	Finish	Total Float
I-285 PIB Interchange Improvement Project		1105.00d	Feb-26-2021	Mar-06-2024	0.00d
Milestones		1105.00d	Feb-26-2021	Mar-06-2024	0.00d
A1010	Contract Execution	60.00d	Feb-26-2021	Apr-26-2021	0.00d
A1000	GDOT Letting - February 26, 2021	0.00d	Feb-26-2021*		0.00d
A1020	Notice to Proceed 1/2	0.00d	Apr-27-2021		0.00d
A1580	Contract Duration	955.00d	Apr-27-2021	Dec-07-2023	0.00d
A1030	Notice to Proceed 3	0.00d	Dec-23-2021		0.00d
A1040	Substantial Completion	0.00d		Dec-07-2023	0.00d
A1620	Punch List/As-Builts	90.00d	Dec-08-2023	Mar-06-2024	0.00d
A1050	Final Acceptance	0.00d		Mar-06-2024	0.00d
Design		241.00d	Apr-27-2021	Dec-23-2021	804.00d
A1490	Prepare/Submit/Review/Approve - Concept Layout	60.00d	Apr-27-2021	Jun-25-2021	0.00d
A1500	Environmental Permitting	180.00d	Jun-26-2021	Dec-22-2021	0.00d
A1510	Utility Relocation Plans	120.00d	Jun-26-2021	Oct-23-2021	60.00d
A1520	Geotechnical Design	50.00d	Jun-26-2021	Aug-14-2021	130.00d
A1540	Roadway/Drainage Preliminary Design	30.00d	Jun-26-2021	Jul-25-2021	45.00d
A1590	Preliminary Bridge Plans	40.00d	Jun-26-2021	Aug-04-2021	29.00d
A1550	Roadway/Drainage Preliminary Plan GDOT Review	30.00d	Jul-26-2021	Aug-24-2021	45.00d
A1600	Preliminary Bridge Plan - GDOT Review	21.00d	Aug-05-2021	Aug-25-2021	29.00d
A1560	Roadway/Drainage Final Plans	45.00d	Aug-25-2021	Oct-08-2021	45.00d
A1530	Final Bridge Design	90.00d	Aug-26-2021	Nov-23-2021	29.00d
A1570	Roadway/Drainage Final Plan GDOT Review/Acceptance	30.00d	Oct-09-2021	Nov-07-2021	45.00d
A1610	Final Bridge Plan - GDOT Review/Acceptance	30.00d	Nov-24-2021	Dec-23-2021	804.00d
Construction		670.00d	Dec-23-2021	Oct-23-2023	135.00d
Utilities		210.00d	Feb-28-2022	Dec-16-2022	318.00d
A1060	Relocate Georgia Power - Aerial	70.00d	Feb-28-2022	Jun-03-2022	0.00d
A1090	Relocate Atlanta Gas Light	90.00d	Feb-28-2022	Jul-01-2022	120.00d
A1120	Colonial Pipeline Casing Extension	60.00d	Feb-28-2022	May-20-2022	296.00d
A1070	Relocate Comcast	20.00d	Jun-06-2022	Jul-01-2022	0.00d
A1100	Relocate Georgia Power - Buried	40.00d	Jun-06-2022	Jul-29-2022	418.00d
A1080	Relocate AT&T - Aerial	60.00d	Jul-04-2022	Sep-23-2022	0.00d
A1110	Relocate AT&T - Buried	60.00d	Sep-26-2022	Dec-16-2022	0.00d
Roadway		379.00d	Dec-23-2021	Oct-23-2023	69.00d
A1400	Clear and Grub	30.00d	Dec-23-2021	Feb-25-2022	0.00d
Flowers Road		32.00d	Dec-19-2022	Feb-27-2023	0.00d
A1290	Demo/Grade - Flowers Road	10.00d	Dec-19-2022	Jan-17-2023	0.00d
A1310	Install Storm Drain - Flowers Road	15.00d	Jan-19-2023	Feb-13-2023	0.00d
A1300	Base/Pave - Flowers Road	6.00d	Feb-14-2023	Feb-24-2023	0.00d
A1320	Shift Traffic to New Flowers Road Alignment	1.00d	Feb-27-2023	Feb-27-2023	0.00d
NB Off Ramp		99.00d	Feb-28-2023	Aug-08-2023	0.00d
A1330	Demo/Grade - NB Off Ramp	5.00d	Feb-28-2023	Mar-07-2023	0.00d
A1340	Install Storm Drain - NB Off Ramp	10.00d	Jul-13-2023	Jul-26-2023	0.00d



Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Baseline Milestone
Milestone
Summary

I-285 @ Peachtree Industrial Boulevard
Interchange Improvement Project
PI No. 0017126, Dekalb County
GDOT District 7

Data Date: Feb-18-2021

C. W. Matthews Contracting Co., Inc.

Proposal Schedule

Submitted: February 18, 2021
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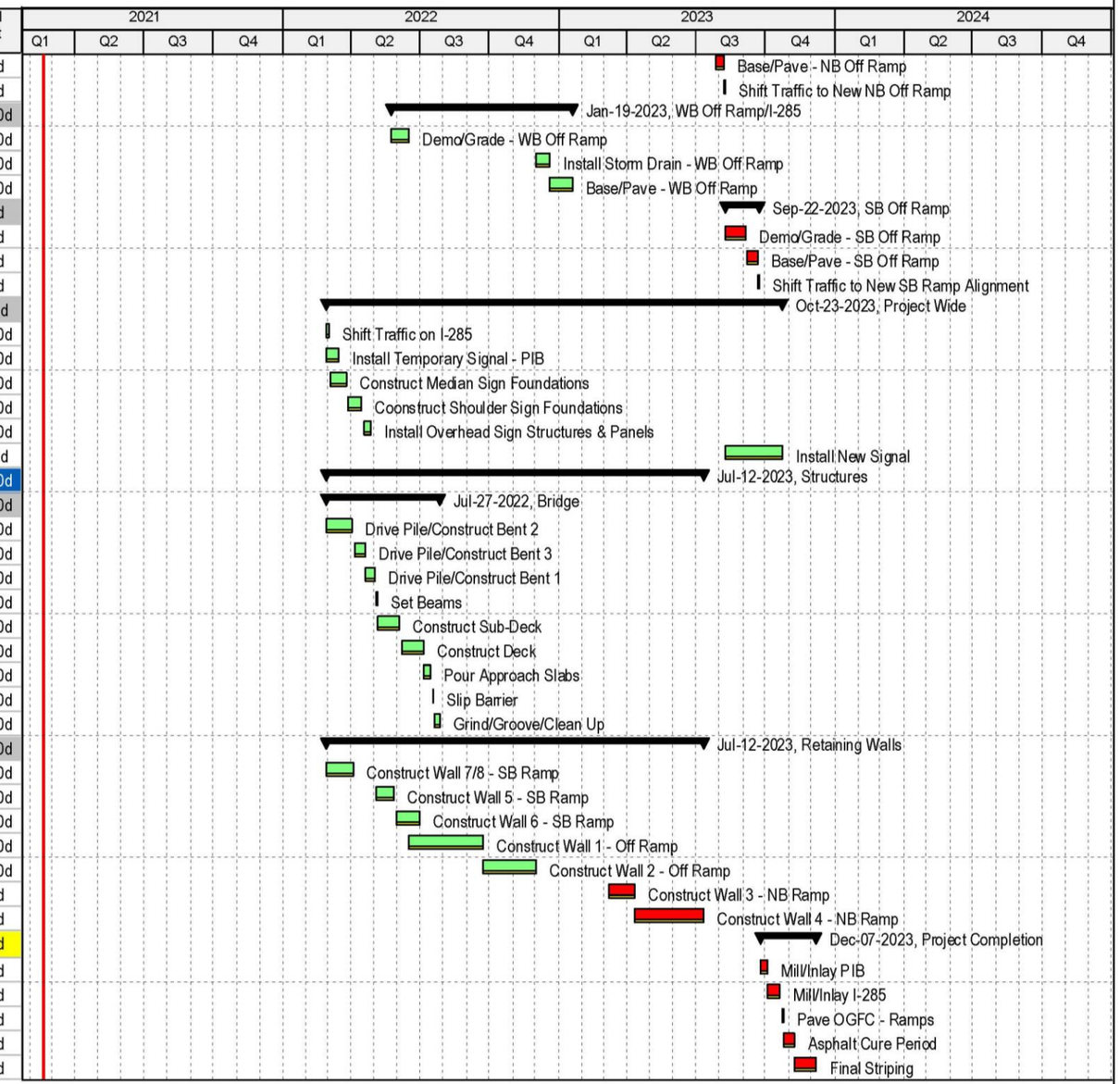
Activity ID	Activity Name	Planned Duration	Start	Finish	Total Float
A1350	Base/Pave - NB Off Ramp	8.00d	Jul-27-2023	Aug-07-2023	0.00d
A1390	Shift Traffic to New NB Off Ramp	1.00d	Aug-08-2023	Aug-08-2023	0.00d
WB Off Ramp/I-285		135.00d	May-24-2022	Jan-19-2023	234.00d
A1360	Demo/Grade - WB Off Ramp	15.00d	May-24-2022	Jun-16-2022	234.00d
A1370	Install Storm Drain - WB Off Ramp	10.00d	Dec-02-2022	Dec-19-2022	234.00d
A1380	Base/Pave - WB Off Ramp	10.00d	Dec-20-2022	Jan-19-2023	234.00d
SB Off Ramp		26.00d	Aug-10-2023	Sep-22-2023	0.00d
A1410	Demo/Grade - SB Off Ramp	15.00d	Aug-10-2023	Sep-05-2023	0.00d
A1420	Base/Pave - SB Off Ramp	10.00d	Sep-06-2023	Sep-21-2023	0.00d
A1430	Shift Traffic to New SB Ramp Alignment	1.00d	Sep-22-2023	Sep-22-2023	0.00d
Project Wide		349.00d	Feb-28-2022	Oct-23-2023	24.00d
A1630	Shift Traffic on I-285	3.00d	Feb-28-2022	Mar-03-2022	340.00d
A1670	Install Temporary Signal - PIB	10.00d	Feb-28-2022	Mar-15-2022	195.00d
A1640	Construct Median Sign Foundations	12.00d	Mar-04-2022	Mar-25-2022	340.00d
A1650	Coonstruct Shoulder Sign Foundations	12.00d	Mar-28-2022	Apr-15-2022	340.00d
A1660	Install Overhead Sign Structures & Panels	6.00d	Apr-18-2022	Apr-26-2022	340.00d
A1680	Install New Signal	45.00d	Aug-10-2023	Oct-23-2023	24.00d
Structures		500.00d	Feb-28-2022	Jul-12-2023	237.00d
Bridge		93.00d	Feb-28-2022	Jul-27-2022	330.00d
A1210	Drive Pile/Construct Bent 2	20.00d	Feb-28-2022	Apr-01-2022	225.00d
A1220	Drive Pile/Construct Bent 3	10.00d	Apr-05-2022	Apr-19-2022	225.00d
A1200	Drive Pile/Construct Bent 1	10.00d	Apr-20-2022	May-03-2022	225.00d
A1230	Set Beams	2.00d	May-04-2022	May-05-2022	225.00d
A1240	Construct Sub-Deck	18.00d	May-06-2022	Jun-03-2022	225.00d
A1250	Construct Deck	18.00d	Jun-07-2022	Jul-05-2022	225.00d
A1260	Pour Approach Slabs	8.00d	Jul-06-2022	Jul-15-2022	225.00d
A1270	Slip Barrier	2.00d	Jul-18-2022	Jul-19-2022	330.00d
A1280	Grind/Groove/Clean Up	5.00d	Jul-21-2022	Jul-27-2022	330.00d
Retaining Walls		285.00d	Feb-28-2022	Jul-12-2023	133.00d
A1180	Construct Wall 7/8 - SB Ramp	20.00d	Feb-28-2022	Apr-04-2022	219.00d
A1190	Construct Wall 5 - SB Ramp	15.00d	May-04-2022	May-27-2022	345.00d
A1170	Construct Wall 6 - SB Ramp	20.00d	May-31-2022	Jun-30-2022	345.00d
A1130	Construct Wall 1 - Off Ramp	60.00d	Jun-17-2022	Sep-22-2022	234.00d
A1140	Construct Wall 2 - Off Ramp	40.00d	Sep-23-2022	Dec-01-2022	234.00d
A1150	Construct Wall 3 - NB Ramp	20.00d	Mar-09-2023	Apr-11-2023	0.00d
A1160	Construct Wall 4 - NB Ramp	55.00d	Apr-12-2023	Jul-12-2023	0.00d
Project Completion		74.00d	Sep-25-2023	Dec-07-2023	0.00d
A1440	Mill/Inlay PIB	6.00d	Sep-25-2023	Oct-03-2023	0.00d
A1450	Mill/Inlay I-285	12.00d	Oct-04-2023	Oct-20-2023	0.00d
A1460	Pave OGFC - Ramps	2.00d	Oct-23-2023	Oct-24-2023	0.00d
A1470	Asphalt Cure Period	15.00d	Oct-25-2023	Nov-08-2023	0.00d
A1480	Final Striping	15.00d	Nov-09-2023	Dec-07-2023	0.00d



Primary Baseline
Actual Work
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Critical Remaining Work
Baseline Milestone
Milestone
Summary

I-285 @ Peachtree Industrial Boulevard
Interchange Improvement Project
PI No. 0017126, Dekalb County
GDOT District 7

Data Date: Feb-18-2021

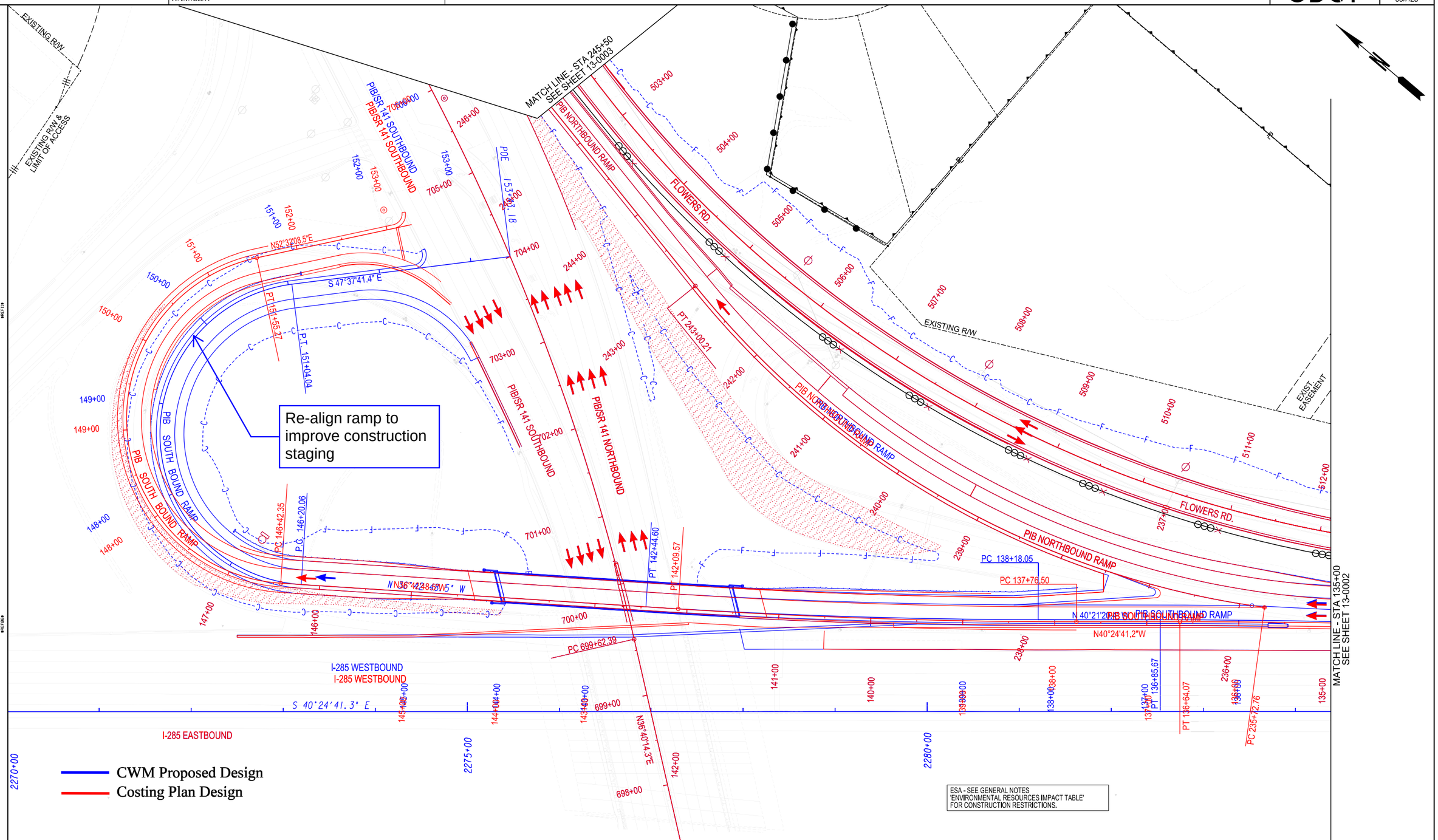
DATE$$$
$USER$

$PRF8$
$$PENTABLE$$

DGN

GDOT

P. I. No.
0017126



PROPERTY AND EXISTING R/W LINE	
REQUIRED R/W LINE	
CONSTRUCTION LIMITS	
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES	
EASEMENT FOR CONSTR OF SLOPES	
EASEMENT FOR CONSTR OF DRIVES	

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS
ORANGE BARRIER FENCE
ESA - ENV. SENSITIVE AREA (SEE ERIT TABLE)

INFRASTRUCTURE CONSULTING & ENGINEERING
4940 PEACHTREE INDUSTRIAL BLVD., SUITE 310
NORCROSS, GEORGIA 30071

SCALE IN FEET
0 50 100 200

REVISION DATES

CONSTRUCTION PLAN
I-285 @ SR 141
EXIT RAMPS

CHECKED:		DATE:	
BACKCHECKED:		DATE:	
CORRECTED:		DATE:	
VERIFIED:		DATE:	

DRAWING No.
13-0001

10/23/2015 GPLN