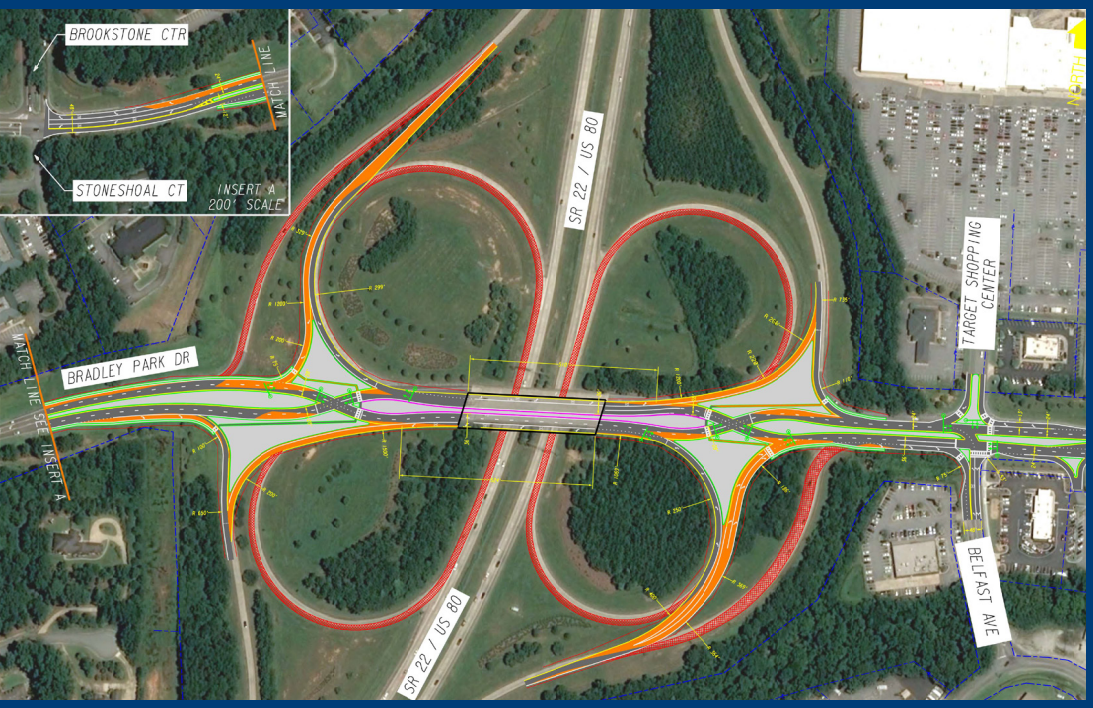

PROPOSAL | RFQ 484-12202019DB

DESIGN-BUILD SERVICES FOR SR 307/ DEAN FOREST ROAD AT I-16 DDI

P.I. Number: 0013727
Chatham County, GA

EXHIBIT C. TECHNICAL PROPOSAL SUBMITTAL

Prepared for
Georgia Department of Transportation

Prepared by
TIC - The Industrial Company
and KCI Technologies, Inc.

May 14, 2020

EXHIBIT C. TECHNICAL SUBMITTAL

ITEM	DESCRIPTION	SECTION	PAGE
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C.1.2. CONSTRUCTION STAGING AND TRAFFIC MANAGEMENT

Construction staging and traffic management shall be implemented in a direct and practical approach as to allow for minimal impacts to public traffic. Minimal impacts to public traffic are an effective way to ensure the safety of all project personnel and the traveling public. TIC shares the values of GDOT in providing a safe and predictable environment during construction, as well as maintaining the highest possible level of service in the work zone.

The focus of our phasing will be driven by the critical path of our CPM schedule and the work restrictions as noted in the RFP. To better define, manage, and organize our construction approach, the project will be constructed in four stages as shown. Design and construction will be planned in the following sequence to keep major resources and personnel fully utilized:

- Stage 1
  - Clear and grub within the right-of-way
  - Install temporary pavement on Dean Forest Road
  - Construct MSE wall and temporary driveway along the eastbound on ramp to I-16
  - Drive test and production pile
  - Construct the right bridge MSE walls and substructure concrete
  - Construct the right bridge superstructure and roadway tie in concrete
- Stage 2-A
  - Build up grade and install temporary pavement along portions of northbound Dean Forest Road and all on/off ramps
  - Construct retention ponds between eastbound I-16 off ramp and Dean Forest Road
  - Construct driveway along the eastbound on ramp to I-16
  - Construct portions of the shared-use path along Dean Forest Road
- Stage 2-B
  - Leveling build up to finish grade under traffic on both sides of existing bridge
  - Construct paving on the approaches to the right bridge
- Stage 3
  - Shift traffic to the right bridge
  - Install temporary pavement as necessary along Dean Forest Road and I-16 ramps
  - Demo the existing bridge
  - Construct the left bridge MSE walls and substructure concrete
  - Construct the left bridge superstructure and roadway tie in concrete
  - Mill and inlay existing HMA per costing plans on Dean Forest Road
  - Construct concrete paving on the approaches to the left bridge
- Stage 4-A
  - Implement short-term closure on Dean Forest Road and convert roadway to DDI
  - Activate final signals
  - Re-open Dean Forest Road
  - Re-strip right bridge
- Stage 4-B
  - Construct remaining medians and islands
  - Place final striping

C.1.2. CONSTRUCTION STAGING AND TRAFFIC MANAGEMENT

C.1.2 (A) SIGNIFICANT PROJECT CHALLENGES TO CONSTRUCTION PHASING

The previous stated stages are the most effective way to limiting impacts to traffic, although some challenges will still exist. The following are some of the major challenges to the construction phasing for this project and how we will address these issues.

- Traffic Pattern Shift – Traffic will continue to travel on the existing bridge until the right bridge and northbound roadway are constructed. Once completed, all traffic will be shifted to flow on the right bridge. The existing bridge and roadway will then be demolished, and the new southbound roadway constructed. Upon completion of this, traffic will be rerouted into the new DDI layout.
- Coordination with I-16 Interstate Widening – Due to the teams' local presence, TIC will establish a relationship early with the I-16 Widening prime contractor and get involved in the planning process before their adjacent work begins. This will be achieved to ensure that construction activities from both projects will coincide and the best overall product is delivered to the Department.
- Laydown and Storage Areas - TIC will establish adequate laydown and storage areas within the project site as available. A laydown area for staging of material and equipment, as well as maintenance resources, will be on the south side of Dean Forest Road adjacent to Town Center Drive. Here, we will also establish our site office for project supervision and support. In all areas of laydown, storage, disposal and recycling, the appropriate permits will be obtained, and all regulations will be followed. Nearby locations, Hutchinson Island and Gwinnett Street, will also be available for additional storage of overflow materials and equipment.
- Traffic Management - The safety of the public and that of our employees is the most important aspect of any project. The main hazards on this project involve working alongside moving traffic and changing traffic flows. Traffic control devices, such as Changeable Message Signs (CMS's), will be placed before, within, and after the project limits to increase the public awareness. TIC believes in the use of CMS's as an effective means of communication with the traveling public, and plans to use them in coordination with any planned traffic movements, giving as much notice needed to responsibly communicate to motorists. Prior to the start of each work period, the construction team will inspect all traffic control devices to ensure that they are in good condition. Inspections will also be conducted periodically during work hours. Additionally, trucks and equipment entering/exiting the project site can cause distractions for the motoring public. In such cases, temporary lane closures following MUTCD approved practices will be used to assist in the safety of all drivers. Any temporary disruption to the public will be kept to a minimum in time and frequency.
- Weekend Ramp Closures – During each of the four weekend ramp closures where only one ramp will be closed, all other ramps, SR307/Dean Forest Road, and I-16 will remain open and at optimal flow conditions. No separate lane/shoulder closures will be enforced during these times. Before each weekend closure, CMS's will be installed more than 30 days prior to the work period to effectively notify the traveling public. To accommodate drivers affected by the ramp closure, detour signs will be installed to provide an alternate route onto I-16. Each ramp closure will be kept as brief as possible to minimize the impacts to motorists.

C.1.2 (B) WORK AREAS, WORK SEQUENCE, AND LAY DOWN AREA LOCATIONS

TIC provides both on-site and off-site locations for performing work and staging equipment and materials. Equipment can be mobilized in and out, as needed, which will reduce distractions to motorists along the project. The following locations that will be utilized are within 10 miles of the project site:

- Hutchinson Island – Five-acre laydown with river access and an office for pre-planning and construction operations

- Gwinnett Street – Five-acre maintenance and equipment yard including a fabrication and machine shop for offsite materials and maintenance
- Laydown Area - Site office and material storage area to be located on the south side of Dean Forest Road adjacent to Town Center Drive

Minimal Impacts to Traveling Public

Prior to construction, TIC and KCI will address construction mitigation as part of the design process and will include the measures in the work plans throughout the project. Our team will work cooperatively with GDOT, the local community, and businesses to ensure proper access is provided during all phases of construction. The safety of the traveling public is the top priority, and all work areas will be monitored continuously for public safety. To minimize impacts to the public the following items will be utilized:

- Planning - Throughout the planning process, we will address construction means and methods that reduce or mitigate the inconveniences of construction. Elements of consideration when planning include noise reduction, dust mitigation, and orderly storage of materials and equipment. Access to and from the site for construction traffic will be designed with consideration to maintaining access to homes and properties around the project site.
- Maintenance and Protection of GDOT Right-of-Way - The team will be proactive in keeping maintenance issues to a minimum by routinely removing litter, routinely mowing, watering exposed areas to control dust, maintaining erosion control devices, inspecting traffic control devices, and maintaining construction entrances.
- Delivery Procedure - Prior to any delivery, subcontractors and vendors working within the project shall coordinate with the team to minimize possible distractions to the traveling public.
- Traffic Control – All traffic devices and any traffic restrictions to the public will meet or exceed MUTCD and GDOT requirements. Signage will be installed to make the public aware of construction areas. Our team will partner in planning with GDOT and adjacent projects in order provide the most clear and efficient traffic control procedures possible. All public outreach resources such as GDOT media liaison will be utilized for major shift to reduce impacts.
- Laydown Areas – Laydown areas will be properly delineated and barricaded. Entrances and exits will be clear and obvious, and proper signage will be utilized both within the laydown area and at entrances and exits.

Safe Access in the Construction Zone and Laydown Areas

All construction vehicle access points will be provided acceleration and deceleration lanes to facilitate loaded-truck ingress and egress. Construction access to work/laydown areas in the right-of-way will be provided appropriate signage and delineated walkways.

C.1.2 (C) STAGING APPROACH

Staging schematics were designed to allow for minimal impacts to the traveling public, as well as aiming at maintaining the current flow or maximizing the allowable flow during lane closures. The proposal of ATC-04, which suggests replacing a portion of concrete pavement for asphalt pavement, lessens the amount of lane closures or on-site lane shifts with reduced traffic operating speeds and thereby reducing impact to the traveling public and enhancing traffic flow. During lane closures, which will be utilized during non-peak hours, traffic operations (lane width, pavement condition, drainage, signage, and lighting) will be kept similar to the standard conditions to maintain the flow of traffic. Left-turn-only lanes will be provided from SR307 northbound and southbound to the I-16 on ramps in order to prevent backup of non-left turn traffic. When work is taking place in close proximity to the traveled lanes, visual barrier

panels will be utilized to limit distractions to much of the traveling public. Visual barriers will be uniform in order to enhance aesthetics and avoid distraction. In an effort to minimize impacts during peak travel, work operations that occur in close proximity to the traveled lanes or disturb the normal level of traffic operations will be performed during non-peak travel times only.

C.1.2 (D) OPTIMAL DRIVING CONDITIONS APPROACH

Driving conditions were examined closely to make efforts in minimizing the impacts to motorist. This can be accomplished by installing and maintaining clear and direct temporary pavement markings. Regular maintenance and repainting will be performed in accordance with MUTCD standards and as needed to meet this requirement. Water blasting or rotary erasing pavement marking removal methods will be used to prevent the degrading of the pavement when changing pavement marking patterns. Narrow lanes and shoulders will be used at a minimum and only implemented during non-peak hours to prevent impacts to the majority of users. Smooth pavement transitions will be tested before use at each new traffic stage or anytime pavement conditions are affected by construction activities to ensure quality. Repair maintenance will be provided if necessary to maintain smooth transitions. In order to ensure a rapid response to facility maintenance, a dedicated Worksite Traffic Control Supervisor (WTCS) will be available full-time with the knowledge and resources to rapidly respond to incidents that cause deficiencies or require corrections. Coordination with local emergency responders will also be maintained to increase response times. Town hall meetings and media outreach methods such as news broadcasting messages, newspaper articles, website articles and message boards, will be utilized to give advance warnings of traffic changes and lane closures.

C.1.3. PROJECT MANAGEMENT APPROACH

C.1.3.1 ORGANIZATION, MANAGEMENT, KEY PERSONNEL

TIC and KCI have a great working relationship and always strive to provide the Owner with a quality product delivered on time. This project will be no different. The personnel of our integrated team are proven, innovative problem solvers with experience and needed resources to manage and deliver a quality design-build project.

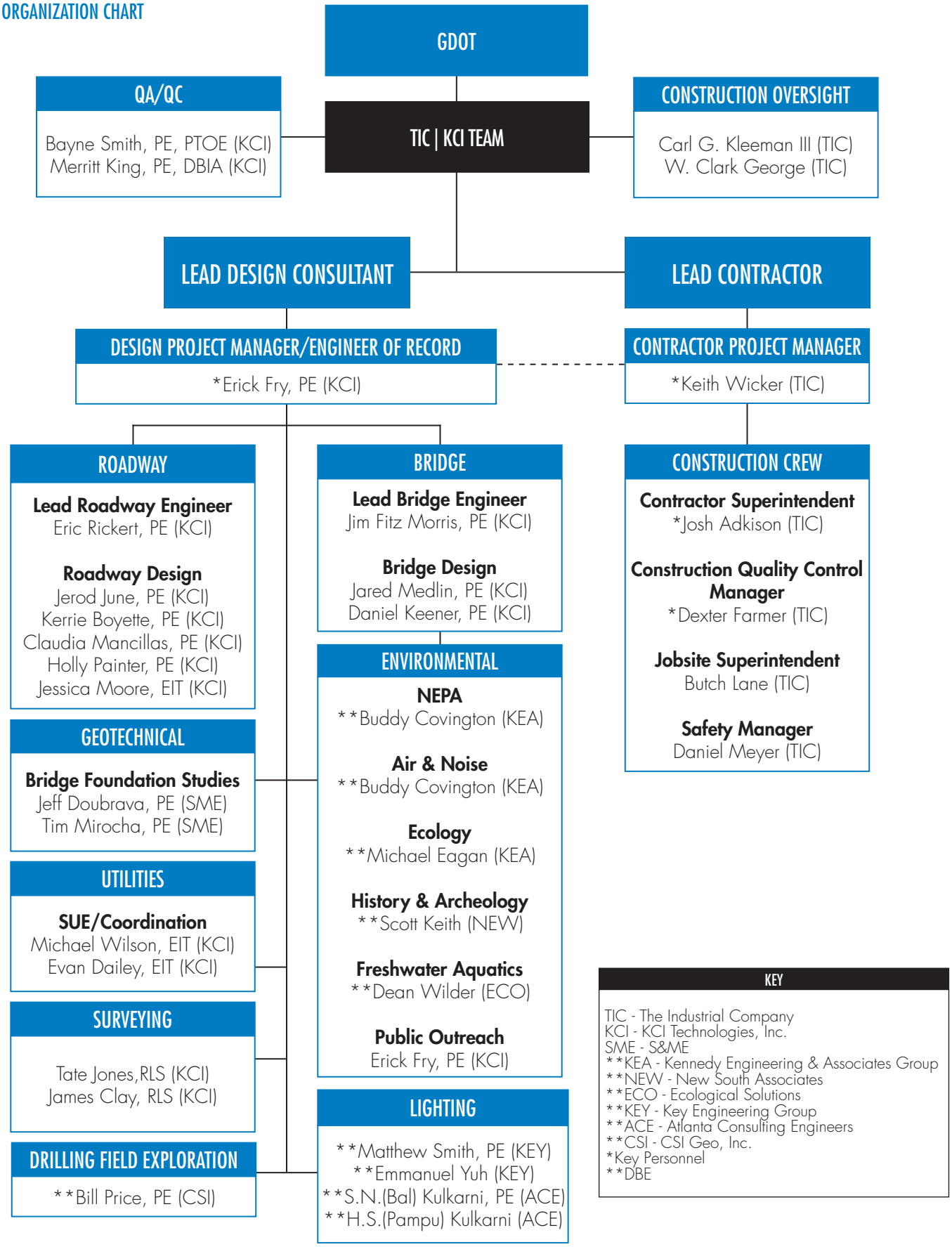
Georgia Department of Transportation (GDOT), its consultants, key stakeholders, and TIC/KCI will comprise the project team to successfully deliver this necessary project. The foundation of our relationship is based upon partnering principles, culture, and putting project goals and needs first. We commit to partnering to ensure a successful project experience for all.

During the design phase, TIC and KCI will communicate daily on the progress and work together to resolve any issues that may arise. TIC will have employees in KCI's design office to facilitate this communication and design efficiency.

The TIC/KCI team's management of the SR307 Dean Forest Bridge replacement will be governed by the Project Management Plan (PMP). This plan will be developed to serve as the primary tool used in managing design, permitting, and construction functions. The PMP will also incorporate a management approach to make certain the project is constructed in a safe, environmentally sensitive, and timely manner while maintaining GDOT's standards for quality.

All members identified in the organizational chart are committed to this project to serve in their identified roles.

C.1.3.1.A ORGANIZATION CHART



C.1.3.1.B APPROACH TO ORGANIZATION, MANAGEMENT, DESIGN, CONSTRUCTION, QUALITY, PROJECT CONTROLS, AND REPORTING FOR PERFORMING WORK

The approach to the organization, management, design, construction, quality, project controls, and reporting of this project will follow the Project Management Plan (PMP) and the structure as displayed in the organizational chart shown in Section C.1.3.1.A. The decision-making processes, such as design changes and construction sequence changes will flow down the organizational chart in a timely manner to ensure that critical information is communicated to all members of the design-build (DB) team. Inversely, project reporting, quality inspections, and construction field issues will flow up the chart to guarantee the appropriate approvals are made. Following this line of communication consistently will prevent important information from not reaching all members of the project team.

As a part of the PMP, separate discipline teams will be developed. Each discipline team will have a lead who will be the primary point of contact within that discipline and will report directly to the project manager. The lead will report on a daily basis to inform the project manager of all decisions made at the discipline level. Quality and safety managers will serve as their own discipline. They will ultimately have authority over each discipline lead to ensure quality and safety are held to the highest standards. They will also report to and update the project manager daily.

Support will be provided between members of the design and the construction teams. During the design phase, TIC will assist KCI's design team with construction knowledge and field conditions to enhance the design efficiency. During construction, the design team will provide support through quality inspections and periodic meetings to ensure the work items are being constructed as proposed in the design documents, including subcontractor work items. The contractor will provide field supervisors to coordinate with subcontractors and ensure the expected quality and consistency are met.

We are fully committed to coordinating with GDOT and its consultants and stakeholders. We will establish reliable points of contact for the third-party stakeholders, as well as the local community and law enforcement agencies. We will be available for both written and verbal communication, whichever is required. During construction, our project office will have an open-door policy for communication with project participants. We are committed to addressing the concerns of interested parties and honoring the commitments reflected in the contract documents.

The TIC team design will be led by KCI, which has a strong, successful design-build resume delivering these types of projects to many clients, including Georgia DOT. The Design Project Manager assigned to this project, Erick Fry, PE, has a 25-year track record of successfully delivering transportation solutions for the State of Georgia. His experience consists of both design-build and conventional design-bid-build, including highway and bridge design, traffic/ITS, transportation demand management, transportation planning, NEPA, and landscape architecture. Mr. Fry has led multiple scoping studies to develop innovative solutions at interchanges and intersections. He has a full understanding of the GDOT PDP process as well as all pertinent design and design-build manuals, and his knowledge of the operations and constructability of DDI's will prove to be invaluable to the TIC team. Mr. Fry has worked on and delivered multiple DDI projects in Georgia, including:

- Pleasant Hill Road at I-85 DDI
- SR22/JR Allen Parkway at Bradley Park DDI
- SR388/Lewiston Road at I-20 DDI
- US10/US441 Oneida Street DDI

C.1.3. PROJECT MANAGEMENT APPROACH

In addition to Mr. Fry, the KCI design team includes individuals that have many years of experience delivering projects through design-build and GDOT. These individuals include:

- Eric Rickert, PE – Lead Roadway Design Engineer - 25+ years of experience provide innovative design solutions for GDOT.
- Jim Fitz Morris, PE – Lead Bridge Design Engineer – has worked on and delivered 20+ design-build structures projects for contractors in the southeast.
- Leah Young, PE – Lead Hydraulics Design Engineer – has 20+ years of experience developing drainage design solutions.
- Steward Laney, PE – Lead Geotechnical Design Engineer – has worked on and deliver 15+ design-build projects.
- Buddy Covington – Lead Environmental – has 24+ years of experience with environmental-related projects, completing NEPA documents and re-evaluations for GDOT and other clients.

The project management plan will include the following items:

- Scope of Work – based upon the RFP, we have explicitly identified what needs to be completed how the work of the KCI design team will internally be completed.
- Project Risks – work alongside TIC in identifying project risks and developing a mitigating plan to deliver the project successfully.
- Schedule Management – planning staff work schedules to meet or exceed the project schedule. Add staff as needed to ensure delivery of design elements on schedule.
- Quality Assurance/Quality Control – KCI is certified to the ISO 9001:2015 standard but will also develop a Design Quality Management Plan (DQMP) that will comply with the requirements outlined in the GDOT Design-Build Manual.
- Communication Plan – in addition to the two monthly meetings required in the RFP, protocols will be developed for when and how often the design team meetings will be held. Also, project guidelines will be outlined on how the team communicates internally.
- Design File Management - KCI is currently using Bentley ProjectWise on multiple design projects and will implement an online system to manage all design tasks. ProjectWise will be used as a repository to manage and store all design documents, reports, and other data, providing universal access by all team members. ProjectWise will be utilized within the TIC/KCI team to maintain design records, but all submittals will be through E-Builder.

The established plan will be carried out throughout the life of the SR307/Dean Forest Road DDI project. It will be evaluated weekly, tweaking the plan as necessary to allow the best path for project success.

- We are fully committed to coordinating with GDOT and its consultants and stakeholders. We will establish reliable points of contact for the third-party stakeholders, as well as the local community and law enforcement agencies. We will be available for both written and verbal communication, whichever is required. During construction, our project office will have an open-door policy for communication with project participants. We are committed to addressing the concerns of interested parties and honoring the commitments reflected in the contract documents.

C.1.3.1.C QUALITY CONTROL AND QUALITY ASSURANCE PROCESSES

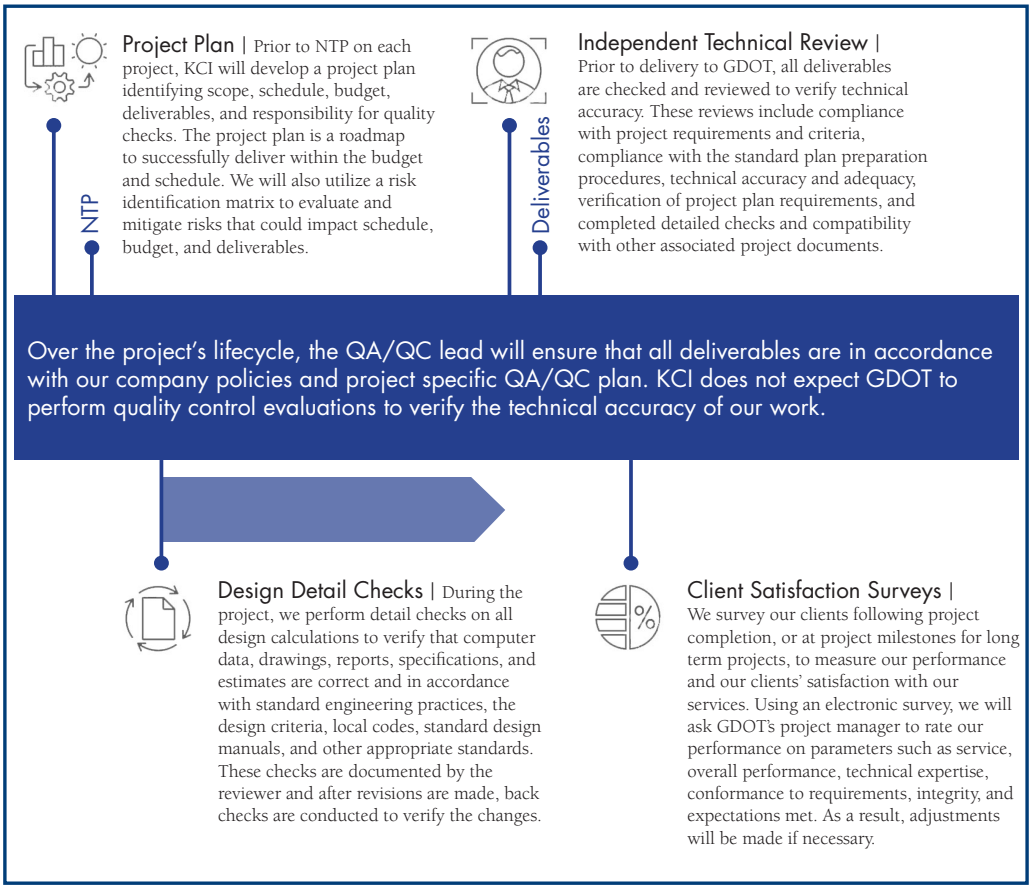
Excellence is a fundamental core value that we strive to meet in all aspects of our work. This is most notably true in the quality of the work we perform for our clients. Our principal quality objective is to meet or exceed our client's expectation by performing our work right the first time and within the requirements of the contract documents. This is done through the following extensive QA/QC processes led by the contractor's quality control manager:

- Quality Control Work Planning – Operation specific work plans are created by project engineers and superintendents that contain all of the information needed for a foreman and their crew to complete the work. Quality aspects of the work plan include tolerances, correct and necessary tools, inspection frequency and checklists, testing procedures, and communication protocols. Work plans are reviewed and approved by the quality control manager and project manager to ensure thorough and clear instructions that when followed will result in superior quality.
- Quality Control Meetings – Pre-activity meetings are held to communicate the work plans to the foreman, craft, and all other team members involved with the work. These meetings discuss items such as operation sequence and schedule, interpretations of quality requirements, testing and inspection frequencies and responsibilities, communication processes, and proper safety and access.
- Quality Control Execution – Foreman and field engineers are responsible for managing the quality execution and ensuring that all members of the team are following the operation specific work plan. Execution evaluations from GDOT inspectors are encouraged and reviewed to improve procedures that result in better quality.
- Quality Assurance Inspections – Inspections are performed for each operation as specified in the operation work plan and as discussed in the pre-activity meetings. Inspection frequencies are a minimum of once after work has begun and once, with the GDOT inspector, before permanent materials are installed. Materials received are thoroughly checked and stored properly before use.
- Quality Assurance Recordkeeping – Operation work plans are kept throughout construction and include any red line changes due to lessons learned in the field. As-built drawings and survey information are kept on file and submitted, as required by the contract documents. Operation and final product photos are taken and filed before work is backfilled or covered up by new work items.

KCI has an established corporate Quality Management System that is designed to facilitate the delivery of consistent, high-quality services to our clients. Key elements of the quality plan include project administration and management; quality planning, and quality control (which provides for detail checks, independent technical reviews, and external independent technical reviews). For this project, KCI will develop a DQMP that will comply with the requirements outlined in the GDOT Design-Build Manual. The plan will include a detailed description of the role of the Engineer of Record (EOR), Erick Fry, PE. The DQMP will also outline the process for independent analytical checks and written procedures for bridges and structures described in Section 1.3 of the GDOT Bridge and Structures Design Manual. The KCI structural design plan currently has Jim Fitz Morris, Lead Bridge Engineer, leading all the structural design work and Jared Medlin, Bridge Designer, performing the independent analytical check.

They operate in two separate offices creating the independence that is required for these checks.

The establishment of this QC/QA process, plus providing the team with the resources necessary for an optimal quality review, will help the KCI design team successfully deliver a quality design product.



C.1.3.2 SAFETY PLAN

Our safety motto "nobody gets hurt" is a representation of our belief that the only acceptable safety goal is that we have zero incidents on all of our projects. This includes our workers, inspectors, subcontractors, and the public in or around or worksites. We believe this can be achieved through the proper planning and execution from our team members that are fanatical about safety.

To ensure the safety of everyone associated with the project, a preliminary, project specific safety plan is designed and reviewed with each team member before beginning work on the project. Some of the key components of the safety plan are as follows:

- Safety commitment and general duty clause
- Jobsite information and points of contact
- Life Saving Actions (LSA) program and project specific top Life Changing Categories (LCC's)
- Jobsite policies (injury reporting, prohibited items, emergency protocol, etc.)
- Training (access, PPE, fall protection, equipment, electrical, excavation, etc.)

These key components are described in depth and in an open discussion setting that allows for workers to fully understand the projects risks and the tools to mitigate the risks and perform the work in a safe manner. Many of these components will be reiterated through weekly safety meetings and individual crew safety trainings in order to ensure worker safety knowledge is kept current.

The project safety plan will be adopted by the design team and by GDOT as well. The safety plan will be led and enforced by the safety manger, although making "safe choices" will be the responsibility of each and every member of the project team. Other safety components that will be utilized to promote and ensure safety include:

- CVIS – Craft Voice in Safety
- "Stop work responsibility"
- Life saving actions program and associated training schedule
- Weekly project safety trainings and toolbox trainings
- Job Site Analysis (JSA)
- Safety walks
- Nobodygetshurt.com – anytime access training

These safety components were designed to empower and encourage safety not only at the management level, but in the hands of every member of the project team. With these tools and programs in hand, every worker will have the knowledge, authority, and responsibility to maintain a safe work environment for all individuals in or around the project worksite.

C.1.3.3 APPROACH TO PUBLIC OUTREACH

Our team understands the importance of public involvement and the dissemination of project and traffic information. We will provide all necessary support and technical assistance to GDOT that is needed to enhance public outreach strategies. We will begin by holding a town hall meeting before making any traffic changes, in association with GDOT, to meet with local residents and stakeholders, such as Southbridge HOA, Georgia Port Authority, Garden City, and others. We would provide general information such as the traffic phasing process, estimated detour and lane closure dates, and the means and methods of providing future information and updated closure dates as the project continues. This will allow for an up-front process for the traveling public and stakeholders to obtain answers to any questions they may have and to express concerns with the upcoming project. This information can then be used in further planning to accommodate the needs of those affected by the project. We can then assist in other early notification methods such as news broadcasting messages, newspaper articles, website articles, and changeable message signs in order to inform travel information to motorist and pedestrians as soon as possible. We can also establish points of contact with emergency services and project stakeholders to allow access in emergency or high priority situations, as well as conduct emergency preparedness drills.

C.2 PROJECT DIFFERENCES FROM RIDS

The team's approach to the design and construction of the project follows the design provided in the RIDs except for the following:

K Value - The costing plans had a proposed K value of 117.33 across the bridge, which corresponds to a design speed of 55 miles per hour (mph). The RFP states a design speed of 25 mph within the DDI and 45 mph elsewhere. However, the only minimum K value listed in the RFP document from GDOT is that of 45 mph, which is 61. The design team chose to follow the minimum K value contained in the RFP and reduced the proposed K value to 61.063.

- By lowering this K value, the design team was able to lower the proposed grades at the westbound on-ramp by approximately five feet and the I-16 westbound off-ramp by approximately 3.5 feet.
- This reduction in K value also reduces earthwork, leveling required for staging, and allows the proposed ramps to be tied back into existing ramps quicker.

2:1 Slopes - The design team successfully submitted an ATC (ATC TIC-001), which proposed the use of 2:1 slopes. The use of 2:1 slopes reduces the wetland fill slopes 49 percent, the total wetland clearing by 61 percent, stream impacts by 42 percent, and stream mitigation by 44 percent. In addition, this change reduces the need for the MSE wall along SR 307 from station +/-193+49.10 to station +/- 198+29.35.

Realignment of the Westbound On-Ramp - The design team shifted the westbound on-ramp approximately 15 feet south of the proposed alignment in the costing plans. This shift in alignment, along with the use of 2:1 slopes, reduces the impacts to wetland 71 while also allowing the existing sanitary force and water mains to remain in place. This design decision has a potential savings of +/- $1,000,000 based on the relocation fee listed in the RFP for this sanitary force main. An MSE wall is proposed at this location from station +/- 233+36 to station +/- 234+48.77 on the westbound on-ramp to reduce impacts to the existing sanitary force and water mains, maintain the current cross drain and reduce impacts to non-jurisdictional ditch 5. Also, the 42-inch cross drain under SR307/Dean Forest Road will be repositioned to avoid the wall and minimize impacts to wetlands, streams, sanitary force main, and water main. Some portion of the proposed shoulder will be needed to facilitate staging with this option since it is shifting closer to the existing ramp with relatively minor changes in vertical grade.

12.5 mm Asphalt Pavement - The design team received approval for an ATC (ATC TIC-003A) to use an alternate asphalt pavement section for the SR307/Dean Forest Road. This asphalt pavement will speed up construction by reducing two stages of construction and lane closures on Dean Forest, thereby improving safety on the project. The ATC also reduces the amount of temporary pavement waste and shoring needed to construct the proposed lanes. All four ramps will remain concrete per the specifications of the RFP.

Lengthening the Bridge - The Design team proposes to lengthen the bridge 9.5 feet as a result of maintaining the 82-foot clearance from face of barrier to face of barrier. In addition, 45-inch FIB beams will be used instead of bulb-tees to assist in reducing the bridge depth and associated rise in grade. Due to the presence of new fill at the right bridge, steel casing will be used around the end bent piles of the right bridge to reduce the additional load from the down drag of fill soils.

FORM Q

Approved ATCs

List all ATCs approved by GDOT that are included in Proposal:

ATC Number	ATC title/name	
ATC TIC-001	2 to 1 Slopes	
ATC TIC-003A	Asphalt Entire Project 12.5 SMA	
ATC TIC-004A	Asphalt South of Bridge 12.5 SMA	

List all ATCs approved by GDOT that are not included in Proposal, and a brief description why not included:

ATC Number	ATC title/name and brief description why not included in Proposal
ATC TIC-002	Bridge Lane Widths – the overall ATC does not result in a quality end product that is equal than or better to the current configuration
ATC TIC-003	Asphalt Entire Project – the proposed 12.5 mm mix is not the most robust mix that could be used to overcome rutting from high truck traffic
ATC TIC-004	Asphalt South of Bridge – the proposed 12.5 mm mix is not the most robust mix that could be used to overcome rutting from high truck traffic
ATC TIC-005	Asphalt Entire Project 9.5 SMA – 9.5 mm SMA is not recommended on high traffic state routes
ATC TIC-006	Asphalt South of Bridge 9.5 SMA – 9.5 mm SMA is not recommended on high traffic state routes

FORM M

Closure Durations, Substantial Completion, and Final Acceptance Proposal

Proposer Name: TIC-THE INDUSTRIAL COMPANY

Complete the required fields, Closure Duration, Substantial Completion Deadline, and Final Acceptance Deadline, in Table M-1 below. Aggregate closure hours cannot exceed the number of hours provided in Table M-1 below. Substantial Completion Deadline and Final Acceptance Deadline cannot exceed the number of Available Days provided in Table M-1 below.

Required fields are identified with an asterisk (*).

Table M-1: Milestone Deadlines

Milestone Deadlines	Duration
*Aggregate Weekend Ramp Closure Period Duration	0 Total aggregate hours of weekend ramp closure periods (not to exceed 224 total hours)
*Substantial Completion Deadline	498 Available Days after NTP 1 (Not to exceed 600 Available Days after NTP 1)
Final Acceptance Deadline	No later than 90 Calendar Days after Substantial Completion

Date: May 14, 2020

Proposer: TIC-THE INDUSTRIAL COMPANY

Signature: Carl G. Kleeman III

Title: CARL G. KLEEMAN, III VICE PRESIDENT