

RFQ 484-03302018DB  
**DESIGN & CONSTRUCT**

## **I-20 AT SAVANNAH RIVER**



**JOHNSON BROS.**  
CORPORATION

**Bridge Replacements &  
Roadway Widening Project  
Through a Design-Build  
Agreement**

P.I. No. 210327- Richmond County, GA  
& Aiken County, SC

# TECHNICAL PROPOSAL

*Rendering of the I-20 Bridge over  
the Savannah River looking north*



# EXECUTIVE SUMMARY



Georgia Department of Transportation (GDOT)  
Attention: Chip Meeks  
Office of Innovative Delivery/P3 Administrator  
One Georgia Center, 19th Floor  
600 West Peachtree Street, NW  
Atlanta, Georgia 30308

## RE: Request for Proposals to Design and Construct the I-20 at Savannah River Bridge Replacements and Roadway Widening Project through a Design-Build Agreement

Dear Mr. Meeks:

Johnson Bros. Corporation (Johnson Bros.), as Lead Contractor, in association with Lead Design Consultant, FIGG Bridge Engineers, Inc. (FIGG), along with construction partner McInnis Construction, LLC (McInnis) and design partners: Stantec Consulting Services, Inc.; Long Engineering, Inc.; and Dan Brown & Associates, PC, will deliver the I-20 at Savannah River Bridge Replacements and Roadway Widening Project safely and economically.

The I-20 Corridor is a vital transportation asset to Georgia and South Carolina, especially to the Richmond County, GA and Aiken County, SC communities. Our Team is dedicated to maximizing mobility for your customers while delivering the new replacement bridges and roadway widening. Our Team of experts in design, construction, and design-build delivery have worked together on previous projects just like yours – tight working conditions with environmentally sensitive areas and a need to keep traffic moving. Our 90 years of collective experience will benefit GDOT, SCDOT, and local communities in the form of a seamless project delivery.

We are uniquely qualified and prepared to successfully deliver the I-20 at Savannah River Bridge Replacements and Roadway Widening Project to GDOT, SCDOT, and the citizens of Georgia and South Carolina.

Sincerely,

Frank Renda  
Johnson Bros. Corporation  
Principal | CEO, Southland Holdings, LLC

## TOP BENEFITS

you will receive from the Johnson Bros. Team:

- ★ **BRIDGE FOUNDATION, PIERS, AND SUPERSTRUCTURE BUILT FROM ABOVE** to provide the safest environment for the river and ecosystem below during all construction phases.
- ★ **IMPECCABLE SAFETY RECORD:** Johnson Bros. has an excellent safety record with a current EMR of .84 including over a million man-hours without a lost-time injury. Recognized with the ENR Mid-Atlantic Region Best Project Safety Award (2014), RHCA John Kelly Safety Award (2016), and numerous FTBA safety awards.
- ★ **ENVIRONMENTALLY SENSITIVE FOUNDATION and CONSTRUCTION EXPERIENCE** building bridges alongside existing bridges in some of the most environmentally sensitive areas for over 90 years, including an active sturgeon breeding area on the Lewis and Clark Bridge Replacement project in North Dakota.
- ★ **A SUSTAINABLE BRIDGE DESIGNED** to achieve FHWA's Platinum INVEST rating (its highest rating).
- ★ **AWARD WINNING RECORD:** Recognized for outstanding projects on a national and international scale. Most recently, Roads & Bridges Magazine's Top Bridges: Dresbach Bridge (2017), Bridge Over Kentucky Lake (2016), Winona Bridge (2015); the FTBA/FDOT Best in Construction Award for Long Key Bridge in the Florida Keys (2016). We have won more than 500 Design Awards for our customers.
- ★ **UNBEATABLE EXPERIENCE:** Completed more than 2,800 bridge projects and over 9,000 lane miles of heavy highway widening including complex and environmentally sensitive ecosystems.
- ★ **MAXIMUM MOBILITY DURING CONSTRUCTION:** Managed more than 600 projects, keeping traffic moving with over 73,000 AADT.
- ★ **PUBLIC OUTREACH:** We are committed to establishing long term service and mentorship programs to support our partnership with the local community. Our team has won over 12 public outreach awards from organizations such as ARTBA, AASHTO, FTBA, RHCA, and RBCA.
- ★ **LOCAL EXPERTISE AND RELATIONSHIPS:** Committed to local and DBE businesses through a philosophy of mentorship and partnership for training and growth. Johnson Bros. successfully surpassed the DBE goal by nearly 5% on their last three bridge and highway projects.
- ★ **BRIDGE WITH THE GREATEST LONG-TERM DURABILITY** for the least maintenance and life cycle cost. Precast elements are manufactured in a controlled environment under tight tolerances resulting in a higher quality product.



## COLLABORATIVE BENEFITS

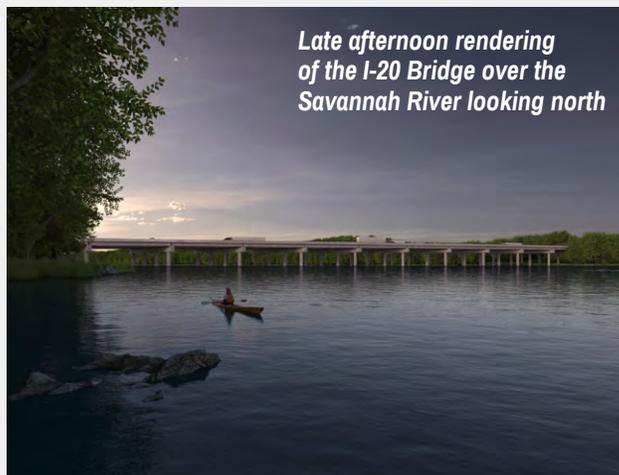
**“The collaborative approach to construction from Johnson Bros., and their sub-contractor McInnis, has been of great benefit to the I-59/I-20 project and ALDOT.”**

**– DeJarvis Leonard,  
Regional Manager, ALDOT**

*Your project will be delivered by a team of experts who have worked together for nearly 20 years on projects similar to the I-20 at Savannah River project.*

Johnson Bros., FIGG, and McInnis have previously delivered exceptional design-build projects together including the Big Marco Island Bridge in Florida, the new I-35W Bridge in Minnesota, and the ongoing I-59/I-20 Central Business District Project in Alabama – this is the largest project in Alabama DOT history.

Because of our collaborative culture, our Team has provided award-winning design and construction services for over 90 years. We bring significant benefits to the communities we work within through quality of design and craftsmanship and dedication to local citizens. We will foster an environment of close working relationships within our Team, GDOT, and our local DBE partners. We are dedicated to providing a DBE program that will be a sustainable investment in the community for years to come through mentorship and training.



*Late afternoon rendering of the I-20 Bridge over the Savannah River looking north*

**More LOCAL Equipment to start construction NOW**

**\$260M**



**FLEET**

**70+**  
**CRANES**

above 50 ton capacity



**OVER 500 DESIGN AWARDS**

**OVER 1,300 DAYS SAFE**

On Johnson Bros. ongoing SELA Army Corps of Engineers Canal Widening Project

**135**



**BARGES**

**OVER 1,800 BRIDGES BUILT**



**Most knowledgeable MARINE BRIDGE BUILDER in the U.S.**

**Roadway Widening and Interstate Design EXPERTS**

**Over 9,000 miles of highway work**

**35 MILES** of bridges along the Gulf and Atlantic

**»» 5**

**IDENTIFIED CONSULTANTS AND 2 IDENTIFIED CONTRACTORS with Georgia Offices**



**Over 1M man hours SAFE!**

**LOCAL DBE UTILIZATION**

**DBE Team members, Long Engineering, Inc. and Contour Engineering, LLC**

# C.1.1

## CONSTRUCTION STAGING AND TRAFFIC MANAGEMENT

# CONSTRUCTION STAGING AND TRAFFIC MANAGEMENT

## C.1.1.1 CONSTRUCTION STAGING AND TRAFFIC MANAGEMENT PLAN

**The Johnson Bros. Team will provide the safest possible operations during construction and maximize mobility.**



The Augusta Canal bridge is 390 feet long and features seven spans of Florida I-Beam (FIB) Type 36 girders with 4" partial depth precast panels and a 4" cast-in-place (CIP) deck. The superstructure is supported by precast bent caps connected to nine CIP columns/drilled shafts at each bent location.

The Savannah River bridge is 1,250 feet long and features 18 spans of Northeast Extreme Tee (NEXT) Type 36F beams with an 8" CIP deck. A typical span length of 75 feet places only 13 bents within the banks of the Savannah River and meets the RFP requirements. The superstructure is supported by precast bent caps connected to nine CIP columns/drilled shafts at each bent location.

**Our team of bridge construction experts will use top-down construction techniques to maximize environmental protection and eliminate the need for trestle work in the water.** We will carefully utilize the closed medians and roadways to deliver the precast bent caps and NEXT beams over the previously erected spans to minimize the number of lane closures. By using the new bridge foundations to support the top-down construction, we will reduce our environmental footprint.



The overall intent of our Demolition Plan is to disassemble the existing structure into large sections and transport them to a yard located in South Carolina or Georgia to be further processed and

recycled. Demolition of both bridges will be completed sequentially utilizing a top-down approach that is incorporated into the construction sequence of the new bridge. Both demolition and new construction will be accomplished from a work trestle supported entirely from the newly installed permanent structure, allowing our Team to complete the Project work scope without impacting the environmentally sensitive areas below. The trestle will have crane mat decking to protect the river, canal, and towpath from any falling debris. Additionally, the Team will utilize a debris shield that follows construction activities to ensure environmental protection and safety to the public.



**The five most significant construction staging and maintenance of traffic issues and solutions are identified on the Project Solutions Map on page 2.**

Our Team will submit a comprehensive Traffic Management Plan (TMP) for each construction phase to GDOT and SCDOT for acceptance.

Our TMP will address operations on I-20 and the arterial roadway systems that feed into this facility. We will restrict construction operations around holidays and special events such as the Masters Golf Tournament. We will provide maintenance of communications plans for Intelligent Transportation Systems (ITS) features including deployment of temporary Intelligent Traffic Management Systems (ITMS) to support traffic patterns and messages to the public. We will complete construction of the Martintown Road signal early to ensure ramp traffic is cleared from the traveled way.

The general sequence of construction is summarized in the following three phases and shown on the Construction Staging and Maintenance of Traffic

Overview on page 3. Additional details are provided in the Schematic Drawings in the Appendix. Prior to the start of each phase, erosion control will be performed in the work zone to allow for initial embankment placement, utility relocation, and construction of stormwater retention facilities.

### PHASE 1:

**Roadway** - Short duration nighttime lane closures will be used to set temporary concrete barrier walls along the inside shoulders of I-20. Phase 1 includes the construction of the median roadway and drainage features. Existing acceleration/deceleration ramps and ingress/egress points will be maintained in their current configuration. The new signal at the Martintown Road eastbound off ramp terminal will also be installed during this phase.

**Bridge** – Construction will begin on the proposed median section of the bridges over the Augusta Canal and Savannah River. Construction of the bridges includes installation of temporary drainage to collect and convey stormwater from the deck of the new structures.

### PHASE 2:

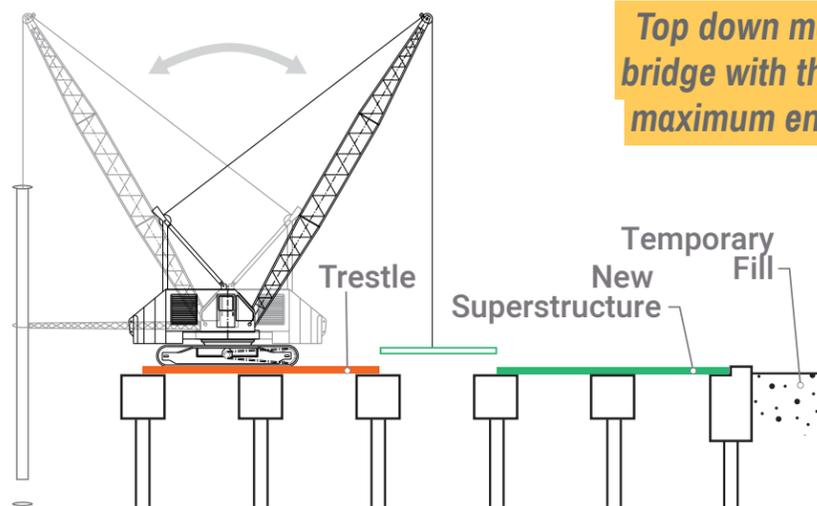
**Roadway** – Upon completion of Phase 1 bridge and roadway construction, the westbound traffic will be diverted to the completed median roadway and bridges. The eastbound traffic will be maintained on the existing roadway and bridge structures. The new westbound roadway will be constructed during this phase. Full access to the Georgia Welcome Center and Martintown Road westbound on-ramp connections will be maintained using temporary pavement.

**Bridge** – Construction will continue on the proposed westbound sections of the Augusta Canal and Savannah River bridges.

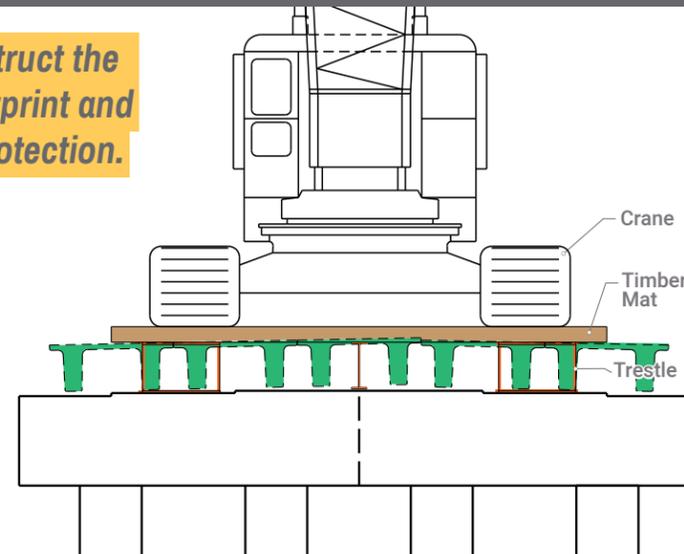
# FIVE MOST SIGNIFICANT BRIDGE SOLUTIONS



## 3 BRIDGE CONSTRUCTION & ERECTION SEQUENCE



*Top down methods to construct the bridge with the smallest footprint and maximum environmental protection.*



## 1 Three Construction Phases

The existing bridge geometry and temporary lane and shoulder width requirements necessitate three construction phases. We will compress the project schedule to meet or exceed the Substantial Completion deadline by working in multiple headings to accelerate the overall project schedule.

## 2 Augusta Canal Closure Restrictions

We will start the Augusta Canal bridge work as early as possible in every phase to allow enough schedule float to complete the required work regardless of any unforeseen or weather delays.

## 3 Environmental Restrictions

We will construct a temporary work trestle on top of the new bridge piers to access the project footprint. This temporary work trestle will allow us to complete construction while adhering to the extensive environmental restrictions.

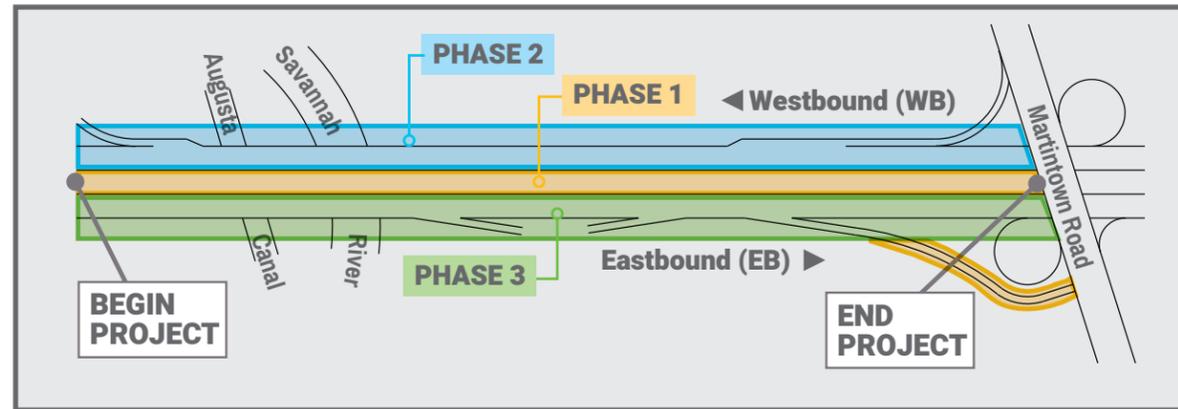
## 4 Geological Conditions

Dense rock with virtually zero overburden creates a challenging condition to install permanent foundations. We have the equipment, staff, and experience to self-perform the construction of these foundations completely from the top-down.

## 5 Construction Access

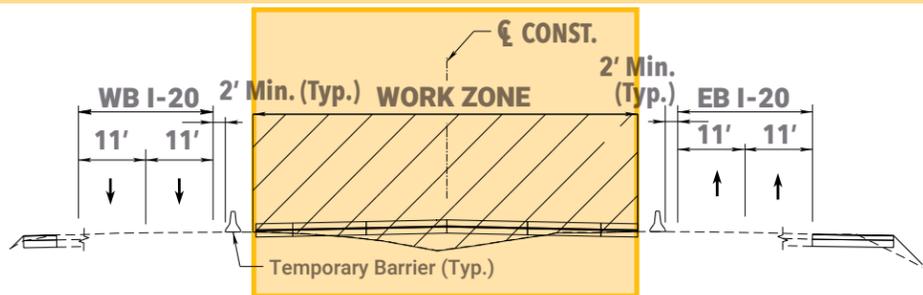
Two temporary work trestle headings will be utilized to provide construction access. The temporary work trestle will be installed from both ends of the bridge and meet in the middle. The trestle will never touch the river.

Rendering: Driver's perspective of the new I-20 Savannah River Bridge

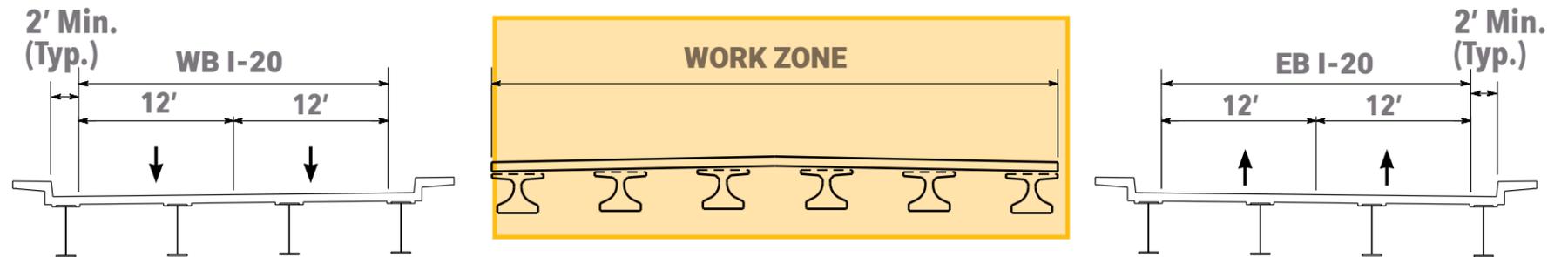


C.1.1.1  
**CONSTRUCTION STAGING AND MAINTENANCE OF TRAFFIC**  
**OVERVIEW**  
 Augusta Canal Bridge shown.  
 Savannah River Bridge phasing similar.

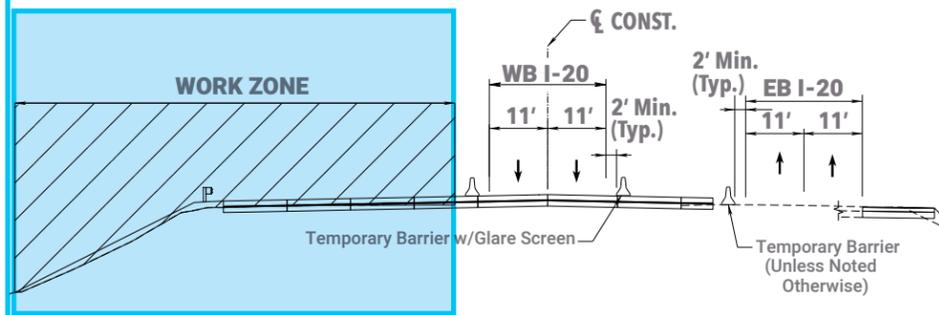
**PHASE 1 - ROADWAY**



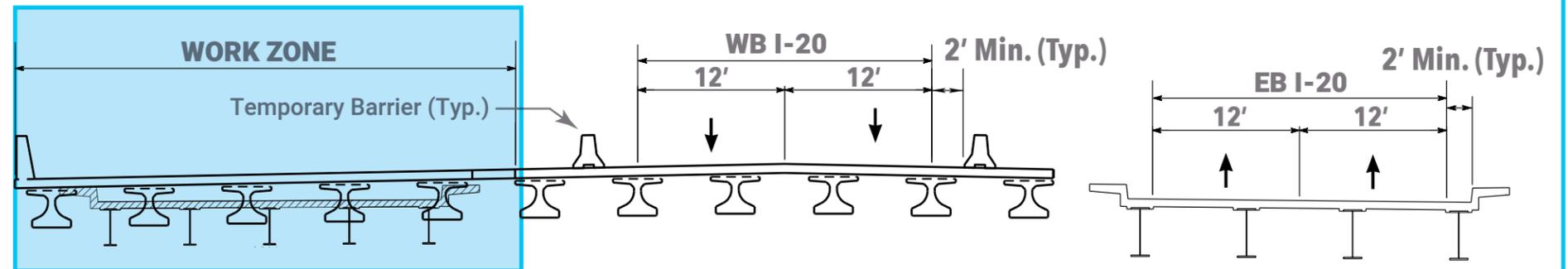
**PHASE 1 - BRIDGE**



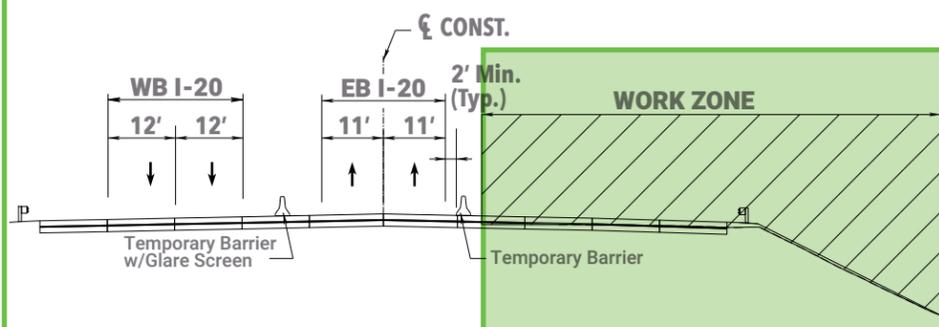
**PHASE 2 - ROADWAY**



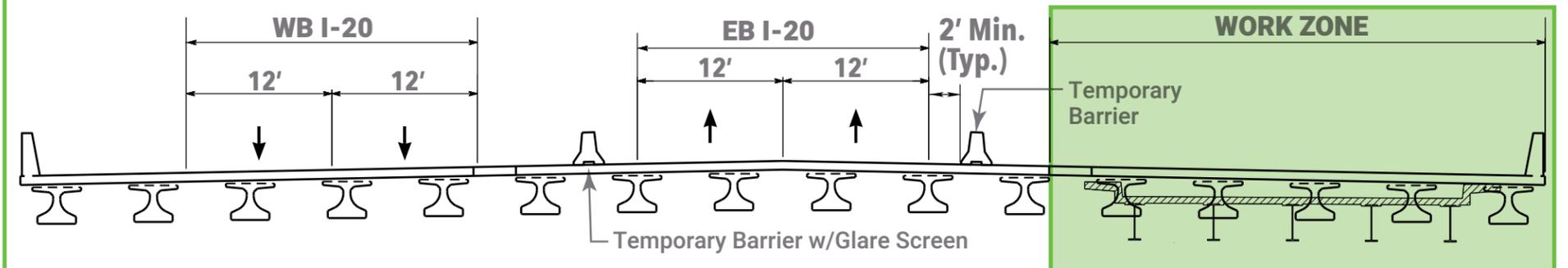
**PHASE 2 - BRIDGE**



**PHASE 3 - ROADWAY**



**PHASE 3 - BRIDGE**



### PHASE 3:

**Roadway** – Upon completion of Phase 2 bridge and roadway construction, the westbound traffic will be shifted to the completed westbound lanes. The eastbound traffic will be diverted to the completed median roadway and bridges. The new eastbound roadway will be constructed during this phase. Full access to the South Carolina Welcome Center and Martintown Road eastbound on-ramp and off-ramp connections will be maintained using temporary pavement.

**Bridge** – Construction will continue on the proposed eastbound sections of the Augusta Canal and Savannah River bridges.

Four lanes of traffic will be maintained on the new pavement and bridges at the end of Phase 3 so the permanent median barrier wall can be installed. Following completion, all six lanes of I-20 will be opened.

We will utilize nighttime traffic pacing to install overhead structures along I-20 per the RFP. Pacing eastbound traffic will involve six interchanges, and pacing westbound traffic will involve five interchanges. We will provide traffic pacing in one travel direction at a time; we will not pace eastbound and westbound traffic in the same night. Our traffic pacing plans follow GDOT design guides and standards, including the use of law enforcement. We will coordinate pacing activities with GDOT, SCDOT, local agencies, and emergency services. We will notify trucking industry organizations and use social media and local news outlets to provide traffic pacing dates, times, and durations. Portable changeable message boards will be strategically placed on both ends of the pacing section and at both Welcome Centers at least 10 days prior to the traffic pacing operations.

There are five ingress/egress points within the project limits, including the River Watch Parkway and Martintown

Road interchanges and the GDOT and SCDOT welcome centers. Traffic management tools will be used to successfully guide the traveling public through the project area. Portable changeable message boards that coordinate with GDOT and SCDOT public information offices and communication with trucking industry organizations will allow us to inform the public of travel patterns and lane closures. **We will provide twice the number of required portable changeable message boards for the Department's use during emergencies or evacuations.**



We will work closely with GDOT and SCDOT to proactively provide advance information of construction activities, lane closures, canal and river closures, and lane shifts. **Our construction team fully understands all aspects of the construction staging and traffic management and will ensure that the proposed work is properly coordinated so the public has an excellent experience during construction.**

### C.1.1.2 MINIMUM LANE CLOSURE DURATIONS

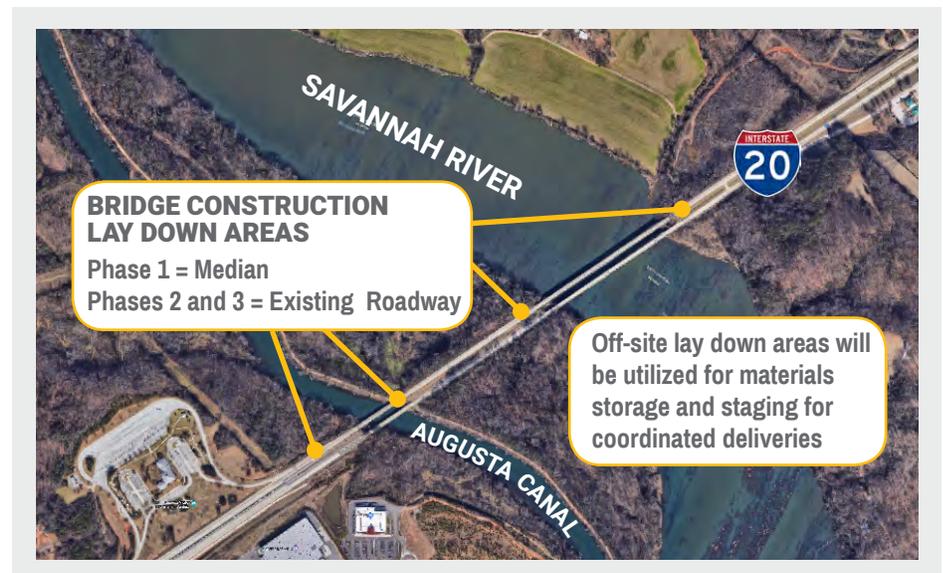
We will achieve the overall construction in the shortest time possible, avoid

construction delay impacts, and reduce lane closures while safely completing the Project. Our Team will utilize innovative measures to accelerate project completion and reduce construction impacts on the traveling public, including the use of precast concrete deck panels, high early strength concrete, high-strength steel, and temporary work trestles. Temporary lane closures will be reduced by over 40% and will only occur during roadway tie-ins to the newly constructed bridge structures. For temporary lane closure durations, see Form M in Section C.3.

### C.1.1.3 WORK AREAS, YARD LOCATIONS, AND SEQUENCING

We will carefully utilize the closed medians and roadways during Phases 1, 2, and 3 for delivering materials and structural components. All surfaces within the project limits that are used for staging will be prepared and maintained to control dust, dirt, and erosion.

Off-site staging areas will be used on both sides of the project limits in Georgia and South Carolina. The staging areas will be utilized for structural precast storage, bulk material lay down areas, and transportation vehicle parking, thus reducing the number of large equipment and structural components in the limited project site.



Operations such as demolition of structures and concrete pavement will require areas for storage and aggregate recycling. These sites will be located to comply with applicable regulatory requirements. Approximately three acres will be needed for the off-site lay down area.

We will comply with erosion control and sediment requirements especially as it relates to the maintenance and upkeep of the Stormwater Pollution Prevention Plan (SWPPP). This will be accomplished through daily monitoring, reporting of activities, and proactive maintenance. We will conduct routine maintenance such as regular sweeping of roadways for dirt and dust, mowing, and inspection.

Our handling, transporting, and management of soil materials will include tight controls to minimize sediment and dust. We will identify differing soils to avoid potential blending and incorporation of contaminated soils to avoid any adverse effects.

We will focus and control lighting levels during nighttime operations without compromising worker safety. We will minimize light intrusion on adjacent properties and any negative impacts to traveling motorists. We will proactively respond to potential issues and repair any damage to the facilities. We will sequence drainage system construction to accommodate needs throughout the construction operations, including the replacement of existing drainage pipes. We will ensure that construction **will not** encroach on the protected natural areas.

Our Team has developed a Construction Access Management (CAM) concept to provide access to the work areas while maintaining successful traffic flow along I-20. The CAM plan will include designated construction site ingress and egress points with acceleration and deceleration lanes for construction traffic, thereby keeping I-20 traffic flowing freely. Access to all interchanges and Welcome Center exit/entrance ramps will be maintained. The CAM plan



The Fort Hamer Bridge in Manatee County, Florida, a bridge construction and roadway widening project built over water in tight quarters and in a sensitive environment.

will address safety and sight distance at construction ingress/egress locations and create safe zones for workers.

### C.1.1.4 MAINTENANCE OF TRAFFIC PLANS

The maintenance of traffic concept is fully described in the Schematic Drawings included in the Appendix. The Schematic Drawings identify construction phases, how traffic is maintained, and how major drainage elements (trunk lines) are extended and constructed.

Benefits received from our TMP include:

- ✔ Maintain safety and mobility along I-20, the Savannah River, the Augusta Canal, and the Towpath trail throughout construction
- ✔ Use temporary barrier walls with glare screens to protect workers and motorists while maintaining appropriate sight distances
- ✔ Keep all I-20 travel lanes open during critical hours
- ✔ Optimize driving conditions, by maximizing shoulders for vehicle pull-offs, clearly placing temporary pavement markings, providing smooth transitions between temporary and permanent pavement, and installing temporary drainage to maintain pavement conditions
- ✔ Coordinate temporary adjustments, durations, and times with GDOT, SCDOT, and local emergency management officials

- ✔ Clearly post and provide advance notice of any closures to road users and stakeholders
- ✔ Use signage, portable changeable message boards, and social media to inform the traveling public
- ✔ Provide informative brochures and signage about the construction at the visitor centers along the Augusta Canal Historic Trail

It is critical to **communicate all traffic patterns in advance** of temporary lane closures and shifts of traffic. Our comprehensive Public Involvement Plan will support our Maintenance of Traffic Operations and assist GDOT and SCDOT to **provide travelers with the highest level of customer service**. The traveling public and stakeholders will stay informed of all mobility aspects on I-20, the Savannah River, the Augusta Canal, and the Augusta Canal Towpath.

Our Team will work closely with GDOT's Highway Emergency Response Operators (HERO), Towing and Recovery Incentive Program (TRIP) contractors, and SCDOT State Highway Emergency Program (SHEP) contractors to coordinate incident detection and response. We will assist authorities to ensure that if an incident occurs it is quickly and safely cleared.

In addition, we will assist with emergency evacuation orders necessary for the safety of first responders and the traveling public.

# C.1.2

## PROPOSAL (PROJECT) SCHEDULE

# PROPOSAL (PROJECT) SCHEDULE

The detailed Critical Path Method (CPM) proposal schedule is provided in the Appendix. The proposal schedule has been assembled with input from all construction and design team members.

The project schedule will ensure all parties are informed of milestones, commitments, upcoming work, and key communication activities. As work progresses, we will update the project schedule to reflect work completed, upcoming activities, and potential schedule challenges that were not anticipated when the project schedule was developed. **The Project Controls Team will facilitate monthly schedule review meetings with all stakeholders**

**to proactively discuss activities, address critical path items that are being expedited, and identify unanticipated events that could impact the critical path.**

For tracking and reporting, we will implement a Work Breakdown Schedule (WBS) with a detailed chart of accounts to provide budgeting information to all department managers. The WBS will be integrated to provide a resource loaded project schedule. Cost and revenue information will be collected from various system modules (e.g. payroll, accounts payable, accounts receivable) and uploaded into the WBS. This real-time information will allow managers to

identify and respond to potential issues affecting project costs and identify future capacity requirements.

The Preliminary Schedule Overview below is a summary of the detailed proposal schedule provided in the Appendix. Our CPM schedule shows the critical path and milestone dates for substantial completion on or before December 31, 2021. The specific milestones stated in Form M were developed from the proposal schedule and include restrictions for protected species, long lead design reviews, permitting, materials, procurement, and independent project activities.



## PRELIMINARY SCHEDULE OVERVIEW

TASK NAME	DAYS	START	FINISH	2019	2020	2021	2022
Preliminary Design	163	11/12/18	6/26/19	[Gantt bar spanning late 2018 to mid-2019]			
Final Design	191	2/7/19	10/31/19	[Gantt bar spanning early 2019 to late 2019]			
Procurement	228	6/13/19	4/27/20	[Gantt bar spanning mid-2019 to mid-2020]			
PHASE 1	180	8/20/19	4/27/20	[Gantt bars for segments A, B, C, D, E from late 2019 to mid-2020] [Green star on segment D: EARLY COMPLETION Martintown Road Intersection]			
PHASE 2	207	4/28/20	2/10/21	[Gantt bars for segments A, B, C, D, E from late 2020 to early 2021]			
PHASE 3	232	2/11/21	12/31/21	[Gantt bars for segments A, B, C, D, E from early 2021 to end of 2021]			
Closeout	85	1/3/22	4/29/22	[Gantt bar spanning early 2022 to mid-2022]			

Vertical markers on the right side of the Gantt chart indicate:
 

- Substantial Completion - (Green star) at the end of Phase 3 (December 31, 2021).
- Final Acceptance (Green star) at the end of the Closeout phase (April 29, 2022).

# **C.1.3**

## **ENVIRONMENTAL IMPACTS / PUBLIC OUTREACH**

# ENVIRONMENTAL IMPACTS/PUBLIC OUTREACH

## Canal and Towpath Closures

The Project allows for a single temporary closure of the Augusta Canal. As indicated on Form M in Section C.3, this time will allow for demolition of the existing Augusta Canal bridge and placement of new bridge beams and structure overhead. Temporary restrictions of the Canal for recreational use during bridge demolition would be during winter months only (December through March) as agreed to with the Augusta Canal Authority (ACA).

The Project also allows for two separate temporary closures of the Augusta Canal Towpath. These are restricted to the winter months when the Towpath is less utilized. Form M in Section C.3 indicates the temporary times during demolition of the existing Augusta Canal bridge. Our team will work with the ACA to inform the public of closures as described in our public outreach program.

## Comprehensive Environmental Protection Program (CEPP)

We will develop and implement environmental protection measures and controls through the overarching CEPP to monitor and preserve the environment for the duration of the Project. We will install and maintain erosion and sediment controls, avoid or minimize disturbances to regulated resources and protected habitats, and control or mitigate potential noise and vibration generated by the Project. The CEPP will also incorporate the commitments and protection measures defined in the approved NEPA document and special conditions associated with project-related environmental permits.

We will use the CEPP to proactively identify environmental challenges and potential solutions during project development and construction. In addition, we will track compliance, non-compliance, and identify actions required

to correct any non-compliances. We will integrate environmental reviews with any proposed design adjustments to determine potential impacts on jurisdictional areas and develop solutions that streamline any required agency approvals. The CEPP will require us to be adaptive and collaborative in integrating construction and environmental permitting.

Our Environmental Team (ET) will provide training to field staff and workers to identify state and federally listed species such as the Robust redhorse, Atlantic pigtoe, Delicate spike, and Savannah lilliput and their habitats. Additionally, photos and habitat information will be posted in a conspicuous location in the field office until construction has been completed. The ET will also monitor the areas known to be inhabited by the listed species and notify GDOT of any changes or potential impacts.

We recognize the value of training workers to identify environmentally sensitive areas and providing them with the knowledge to prevent violations. **Our Team will provide a mandatory 2-hour environmental compliance training prior to construction commencement for each worker.** This training will be conducted by seasoned professionals who understand environmental laws, regulations, and the basis for the environmental commitments defined in the NEPA document.

Our Team members have developed tools to improve quality control and efficiency and encourage overall environmental compliance excellence. Our ET uses GPS-activated tablets with remote server communication while in the field. These allow an Environmental Compliance Inspector to 1) digitally access project documents such as permit drawings, special

conditions, and other environmental commitments remotely, and 2) populate the Environmental Compliance forms with real-time and consistent notes and photos while on-site. The use of cloud technology provides instant access to real-time notes and documentation between multiple team members across the Project corridor.



**We are fully committed to the protection of the environment during all phases of the Project including design, construction, and demolition.**

## Environmental Commitments

**Our Team intends to utilize top-down construction methods to minimize the impacts on the environmentally sensitive areas of the Project.** We eliminate the need for trestle work in the water by using only the new bridge structure for delivery of materials and installation of the bridge components.



We will ensure that the environmental commitments are met through the development of a project-specific Environmental Management System (EMS). **Our EMS is based on a “Plan-Do-Check-Review” process as outlined in ISO 14001.** The EMS will incorporate the avoidance and minimization recommendations in the environmental permits and the commitments in the NEPA document. **The EMS provides the structure, systems, and procedures for achieving the goal of zero environmental violations during all construction activities.**



**Our ET will be led by Jeff Simmons with support from seasoned local environmental compliance**



**manager, Marcus Sizemore. Members of our Team have successfully developed and implemented project-specific environmental solutions across the Southeast region, including Georgia and South Carolina.** We have extensive experience with Federal and State regulations and have a dedicated team of experienced specialists to assist with all aspects of environmental compliance including air quality, noise, hazardous and contaminated materials, and cultural resources. Established strong partnerships with clients and the regulatory community have resulted in more than 12 environmental awards. Our proactive communication practices have resulted in environmental compliance techniques that reduce costs, increase transparency, and facilitate successful project completions.

The ET will meet quarterly with the Project stakeholders to review specific project related training, communication and reporting requirements, and standard operating procedures (SOPs). Our ET will work with the

pertinent regulatory/resource agencies to measure our environmental performance by monitoring agency-approved indicators. Monthly reports outlining compliance will be reviewed with the appropriate agencies. The ET will audit the EMS quarterly to document that the system is being implemented and maintained as intended.

We understand the ecological and public value of protecting Environmentally Sensitive Areas (ESAs) and listed species. Prior to construction, our ET will verify the limits of these areas with field staff and ensure proper signage, fencing, and other barriers are installed. **We will perform daily monitoring while construction is taking place near these ESAs.**

We understand the importance of collaboration with design engineers, construction managers, technical experts, and regulatory experts. It is critical that the design plans are developed in accordance with NEPA and other applicable regulations, and opportunities to avoid or minimize

environmental impacts are addressed. The ET will hold monthly meetings with the design and construction teams to prevent delays during construction and streamline reviews by the regulatory agencies responsible for the approval of permits.

The table below provides an overview of the environmental commitments detailed in the approved NEPA CE document and how our Team will provide added value.



**We demonstrate a commitment to sustainability at every opportunity.** To provide GDOT and the community with a project that models sustainability, we will utilize the Infrastructure Voluntary Evaluation Sustainability Tool (INVEST) 1.3. Developed by the Federal Highway Administration (FHWA), INVEST is used to evaluate and compare the



ENVIRONMENTAL COMMITMENTS	HOW THE JOHNSON BROS. TEAM WILL ADDRESS THESE COMMITMENTS AND ADD VALUE
Avoid Impacts to Waters of the US Following the 404 Permits	<b><u>Environmental Compliance Inspectors will be on-site daily</u></b> to address and monitor impacts to Waters of the US. The Design Build Team will work with the Environmental Team to preserve Waters of the US and find ways to avoid impacts. Training of each construction team member will be implemented to make personnel aware of the restrictions to Waters of the US.
Threatened and Endangered (T&E) Species Special Provisions 107.23H	<b><u>Inspectors will be on-site daily</u></b> to address and monitor impacts to T&E species. This will include documenting potential aquatic organism impacts during cofferdam work and dewatering. Training of each construction team member will be implemented to make personnel aware of the potential presence of T&E species and to avoid impacts.
Environmental Resource Impact Table Comments and Design Features	<b><u>Our Team will ensure that each design and construction team member is aware</u></b> of the restrictions as indicated in Table C of the approved Categorical Exclusion Environmental Commitments. Orange barrier fencing will be placed along the existing ROW line in the Augusta Canal and other Environmentally Sensitive Areas throughout the duration of construction.
Necessary Permits, Buffer Variances, and Mitigation Credits	<b><u>Our Team will submit a Notice of Intent (NOI) to comply with the National Pollutant Discharge Elimination System (NPDES) General Permit to both the Georgia EPD and SCDHEC.</u></b> This will be completed prior to commencement of construction activities. Additionally, our Team will submit permit applications to the USACE Savannah and Charleston Districts to obtain Clean Water Act Section 404 permits. Mitigation for both stream and wetland impacts associated with the project will be provided as appropriate. Following approval of the Section 404 and NPDES permits, our Environmental Team will monitor the project daily for compliance with the permits.
Other Commitments or Requirements	<b><u>Our Team will work with GDOT, SCDOT, and environmental representatives from both agencies to implement and comply with these commitments during all project phases.</u></b> Through our public outreach plan, we will notify the Augusta Canal Authority, public, and other stakeholders of temporary closures and planned construction activities.

sustainability initiatives of infrastructure projects. Using INVEST ensures GDOT and SCDOT that the Project is built in the most context-sensitive, environmentally friendly, and community enriching manner possible. We will protect the environment in the vicinity of the project for the benefit of the human and natural inhabitants. INVEST integrates best practices in design, construction, and operations and maintenance for transportation sustainability. It embodies a “triple bottom line” (social, environmental, and economical) approach and encompasses sustainable principles such as resource conservation, energy efficiency, reduction of environmental impacts, and waste management.

### INVEST KEY GOALS

Maximizing recycling	✓
Controlled equipment storage and servicing areas	✓
Environmentally conscious controlled disposal of all classified waste	✓

**Expanding upon this exceptional experience, we will focus on achieving the highest INVEST rating, Platinum, demonstrating to GDOT, SCDOT, FHWA and the community that the new I-20 Project will be an excellent model of sustainability.**

INVEST is a self-assessment tool that includes a collection of voluntary best practices, known as criteria, which can be scored to determine a quantitative level of sustainability – Bronze, Silver, Gold, or Platinum – for any highway project. FIGG has been instrumental in pioneering the use of INVEST for the Texas Department of Transportation’s Harbor Bridge Replacement Project in Corpus Christi with a **Platinum** rating plan. Using INVEST, FIGG was able to commit to a range of sustainability practices that will bring tangible benefits to the community.

### Enhanced Public Outreach

We will work closely with GDOT, SCDOT, and local agencies to enhance communications by providing an early public outreach and communications campaign, technology partnerships, and a real-time on-site public notification program. As part of our Public Information and Communications Plan (PICP), we will identify the key stakeholders and essential points of contact responsible for keeping the public informed of all construction progress and traffic conditions in the Project area.



Our **early public outreach and communications campaign** has already begun with the formation of a Technical Advisory Group (TAG). Clint Parker, PE, PMP, of Hussey, Gay, Bell, & DeYoung, Inc., Consulting Engineers (HGB), has been identified as the TAG’s Local Agency Coordinator.

**Clint is currently working with the Augusta-Richmond County Traffic Engineer, John Ussery, on several projects near I-20 in the Augusta area where public involvement is key to the Project’s success.**



Their proven working relationship will be leveraged to engage the Augusta community and the traveling public in advance of construction with on-site signage, websites, and social media feeds. Signs and informational brochures will be placed at the Welcome Centers and the Augusta Canal National Heritage Area’s trailheads for greater public knowledge. Our team will continue to work closely with John to keep the public informed and move traffic safely across state lines during The Masters at the Augusta National Golf Club in April. Congestion risks will be identified, and mitigation plans will be coordinated with key stakeholders to keep traffic flowing successfully during the tournament.

We will develop a Hazard Advisory Radio (HAR) system that will work in sync with these partnerships and AM

**We will establish technology partnerships with:**



radio frequencies to provide motorists with multiple options to access construction information. The HAR system will provide real-time work zone updates and traffic advisories to the traveling public and will be linked to portable changeable message boards throughout the Project area. The HAR system will post updates to GPS navigation systems such as Apple Maps, Google Maps, and Waze. GDOT has partnered with Waze, and we will partner with Waze to enhance the information provided to users in South Carolina as well.

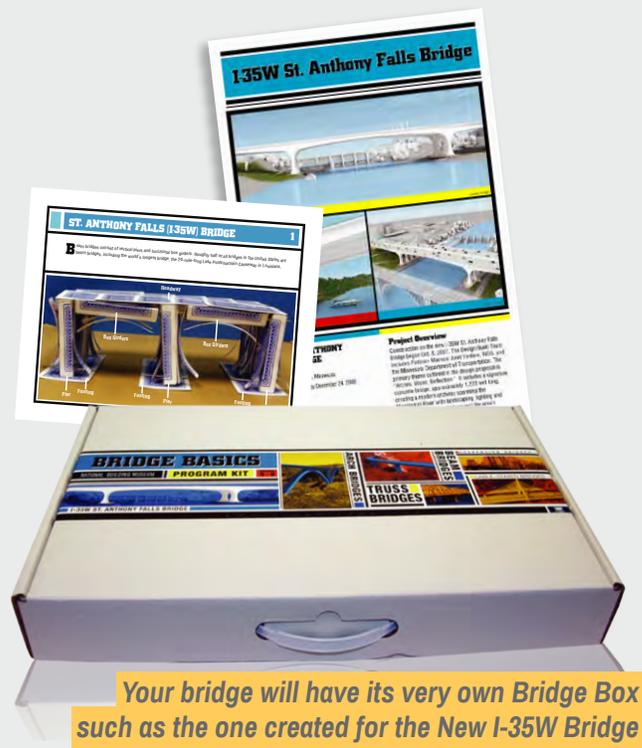
**Portable Changeable Message Boards interconnected through Wi-Fi for uniform, fast, effective messaging**



**We will provide a local STEM program for the I-20 Savannah River Bridge Project**



You will receive the benefit of a **local STEM Program** conducted by FIGG with support from other members of the design and construction Team. We will engage all regional middle schools, Augusta Canal Authority's Discovery Center, and other interested places of learning. Hands on tools will be used to create excitement including the "Bridge Box" for teachers. FIGG has a long history of educational outreach in communities with bridges. FIGG's **Casting the Future Program** was an intensive, two-month STEM Program that involved 1800 students and teachers from 29 Minneapolis-area schools in the construction of the New I-35W Bridge in Minnesota.



Feedback from the traveling public will be invaluable to the Project's success. Links from the GDOT, SCDOT, Augusta, and North Augusta websites will provide real-time traffic and construction updates and a platform to report information from users.

A **real-time on-site public notification program** will be established to notify interstate travelers and users of the Augusta Canal Towpath trail. Portable changeable message boards will be strategically placed along I-20, at the Welcome Centers, and along the Towpath trail. The Welcome Centers and Augusta Canal National Heritage Area trailheads will be utilized to place signage and informational brochures notifying the public of construction activities and schedules, similar to our Team's I-91 Brattleboro Bridge Project in Vermont.

We will seamlessly continue the public outreach that occurred in conjunction with the **Public Information Open House (PIOH)** held July 11, 2017 at the Georgia Visitor Information/Welcome Center. We will coordinate with the stakeholders that were involved and update information currently posted at



**Superintendent Sidewalk Talks during the construction of the New I-35W Bridge in Minnesota created community support.**

the Augusta Canal Authority's Discovery Center and the Savannah Rapids Headgates Visitor Center. This updated information will also be posted to the Augusta Canal Authority's website, the Augusta Utilities Department's website, and the Augusta Canal Authority's Facebook Page.

**We will get local school children excited about science, technology, engineering, math, and construction careers and education through presentations at public schools using the FIGG Bridge Box,**



**which was developed in collaboration with the National Building Museum.** A special Bridge Box, customized to include the Savannah River and Augusta Canal bridges, will be provided to educators to use in the classroom.

**Superintendent Sidewalk Talks** will be held monthly on Saturday mornings from an interesting viewing location such as the Towpath trail for an informative discussion on the design and construction. Our approach on similar projects has been very popular with communities and creates great support for the project during construction.

# C.1.4

## PROJECT MANAGEMENT APPROACH

# PROJECT MANAGEMENT APPROACH

## C.1.4.1 ORGANIZATION, MANAGEMENT & KEY PERSONNEL

### Project Approach

We are dedicated to seamless Team integration for the Project. The success of the Project begins with our partnership with GDOT, SCDOT, and other Project stakeholders. Our Team will provide office space to facilitate co-location with GDOT and SCDOT. The Project office will foster a collaborative and productive environment for constant communication.

Design and construction key personnel will co-locate during planning, design, and construction to ensure all constructability reviews are incorporated into the design efficiently from the start. The co-location of key personnel allows for complete integration of the Project Team and proactive, constant communication. The on-site coordination will be directed by John Ward, the Lead Contractor Project Manager, with input for design and quality management from the Project Team. The Project Controls Team will be based in the Project office with full governance on verifying and reporting the Project performance.

The Project Management Plan (PMP) will detail the organization and management of design, construction, quality, and project controls and reporting for performing work in each state. This PMP will thoroughly encompass all RFP requirements as briefly identified in this Proposal including schedule, safety, construction phasing, public outreach, environmental protection, hazardous materials management, demolition, and maintenance of traffic. Progress meetings, plan submittals, responses to GDOT/SCDOT comments, release for construction plans, permit submittals, and shop drawing review and approval will be documented in the PMP.

### Work in Two States

Jeff Walters, PE, the Lead Design Consultant Project Manager, will lead our

design team, which consists of nationally recognized consulting firms with a long history of delivering transportation projects for GDOT and SCDOT. Coordinating design and permit activities across state lines is a normal business operation for our primary design consultants, FIGG and Stantec, who will provide the services of coordinating, executing, and delivering this Project in Georgia and South Carolina.

Our local team members, HGB and Long Engineering, Inc., will provide project coordination support with Richmond County, Georgia and Aiken County, South Carolina throughout design and construction.

### Quality Processes

Our Team will implement the quality procedures that we have successfully used in the execution of previous design-build projects. We have customized these procedures in our Quality Management Plan (QMP) to meet the specific Quality Control (QC) and Quality Assurance (QA) demands for the Project. The QMP includes the Design Quality Management Plan (DQMP) and the Construction Quality Management Plan (CQMP). Procedures within these plans include those for resolving conflicts between drawings and design requirements (in our DQMP) or document and drawing control and treatment of nonconformities (in our CQMP).

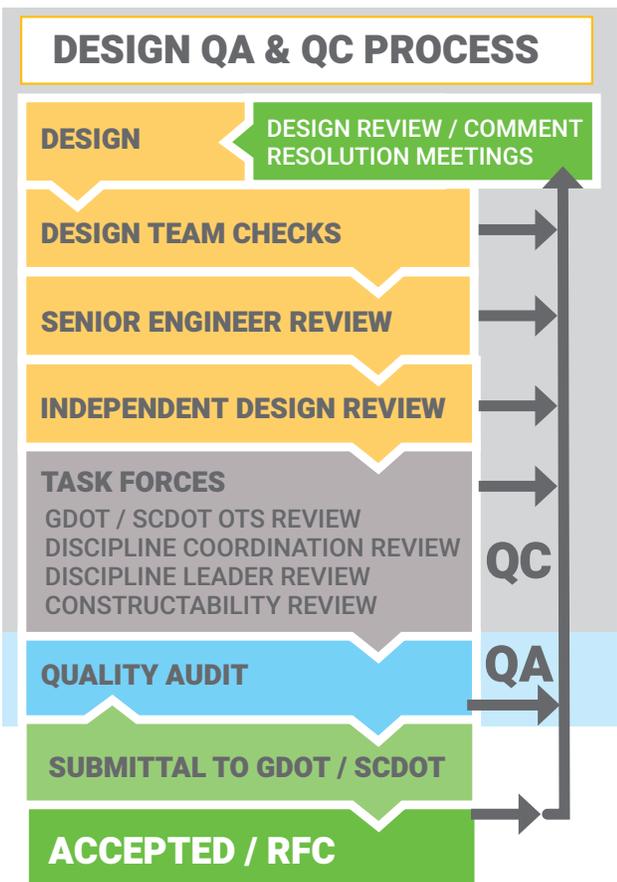
The Project's quality procedure will follow the same Gold Standard Criteria our Team developed for the New I-35W Bridge in Minnesota and used as a standard by FHWA. Our quality designs are ensured through an independent review by a separate team of engineers and experts. Our

Team's engineers, project managers, and experts have the highest level of experience in Construction Engineering Inspection (CEI) and design-build project delivery, which ensures the quality of the design.

Our QC Team will be led by Paul Liles, PE, former Georgia State Bridge Engineer, who will ensure all plans meet GDOT and SCDOT standards for a streamlined review process.



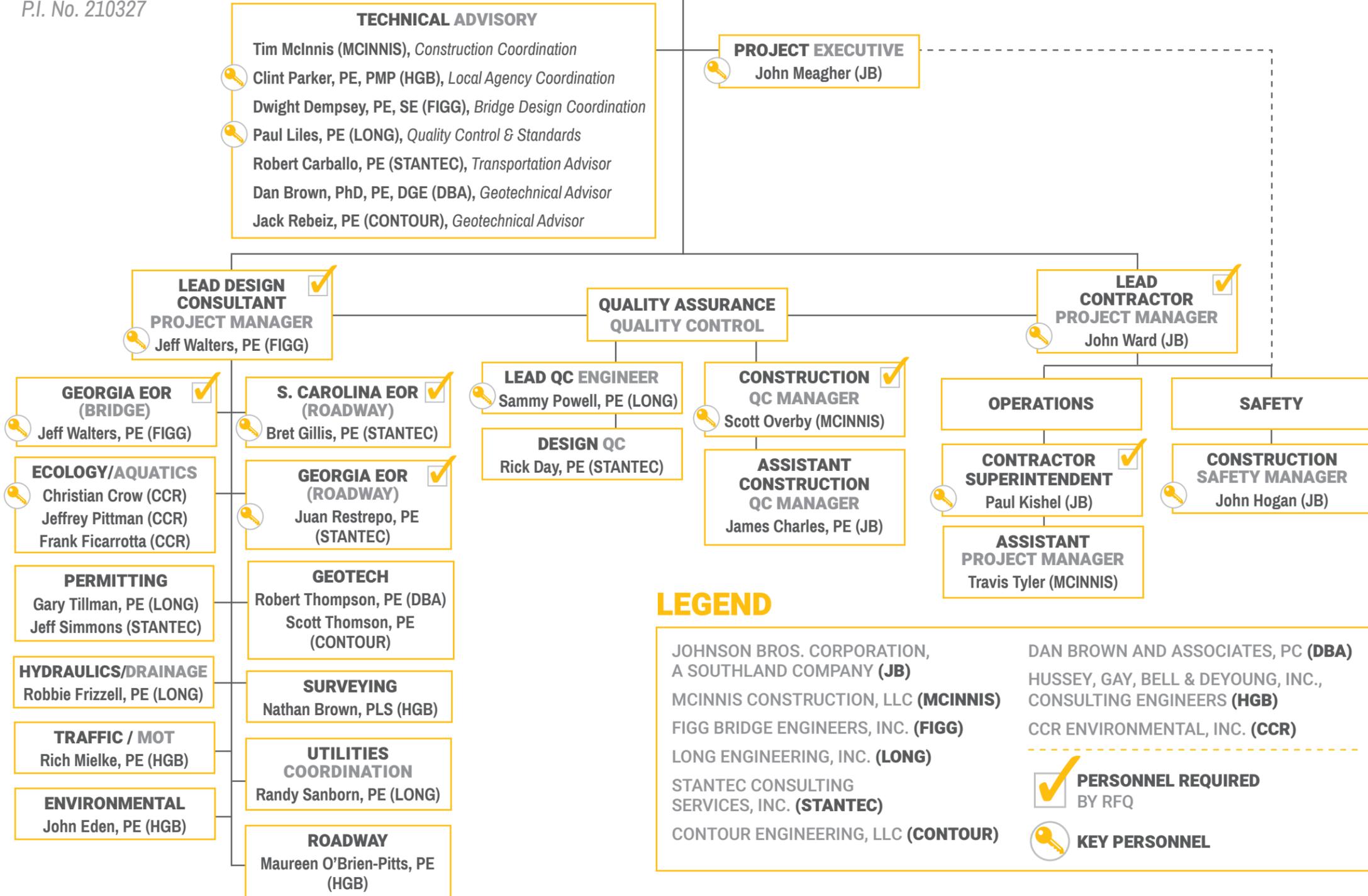
Our Construction Quality Control Manager (CQCM) and Lead Quality Control Engineer (LQCE) will identify project activities that require QA procedures with input from Jeff Walters, John Ward, and GDOT and SCDOT project personnel. Our CQCM, LQCE, and our Technical Advisory Committee will review and approve all procedures before they are distributed and implemented.



# ORGANIZATION CHART

## I-20 at Savannah River Bridge Replacements and Roadway Widening Project

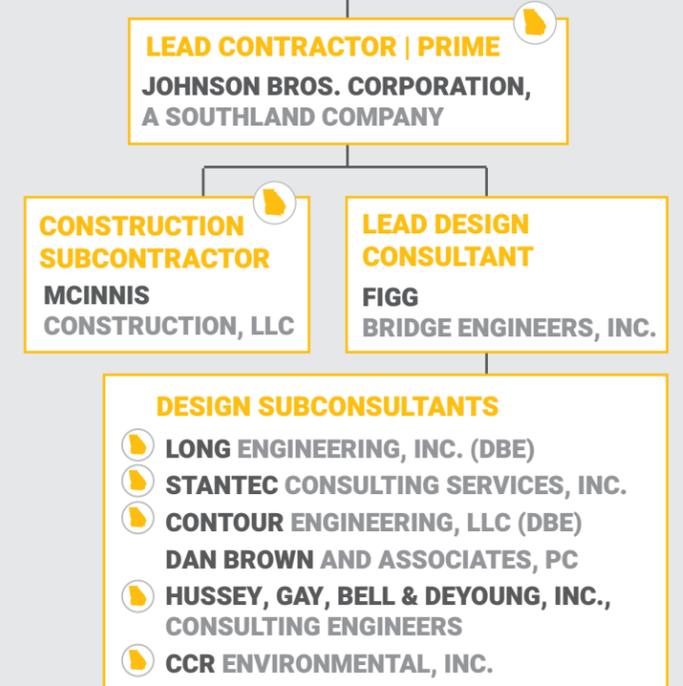
Richmond County, Georgia and  
Aiken County, South Carolina  
RFQ 484-03302018DB  
P.I. No. 210327



### LEGEND

JOHNSON BROS. CORPORATION, A SOUTHLAND COMPANY (JB)	DAN BROWN AND ASSOCIATES, PC (DBA)
MCINNIS CONSTRUCTION, LLC (MCINNIS)	HUSSEY, GAY, BELL & DEYOUNG, INC., CONSULTING ENGINEERS (HGB)
FIGG BRIDGE ENGINEERS, INC. (FIGG)	CCR ENVIRONMENTAL, INC. (CCR)
LONG ENGINEERING, INC. (LONG)	
STANTEC CONSULTING SERVICES, INC. (STANTEC)	✓ PERSONNEL REQUIRED BY RFQ
CONTOUR ENGINEERING, LLC (CONTOUR)	🔑 KEY PERSONNEL

## ORGANIZATION, MEMBER FIRMS & ROLES



### LOCAL OFFICE

FIRM	ROLE
Johnson Bros. Corporation, A Southland Company	Lead Contractor   Prime
McInnis Construction, LLC	Dedicated Construction Subcontractor
FIGG Bridge Engineers, Inc.	Lead Design Consultant, Bridge Design
Long Engineering, Inc. (DBE)	Design Subconsultant: Grading, Drainage, Utilities, Hardscape, Bike/Pedestrian, Demolition/Removal, Erosion Control, Landscape, QA/QC, Surveying
Stantec Consulting Services, Inc.	Design Subconsultant: Permitting, Intersection/Roadway, Traffic/MOT, QA/QC, Electrical/Lighting, ITS, Environmental Compliance
Contour Engineering, LLC (DBE)	Design Subconsultant: Geotechnical Testing, Geotechnical Engineering, Soil Survey, Erosion Control
Dan Brown and Associates, PC	Design Subconsultant: Geotechnical Engineering, Bridge Foundations
Hussey, Gay, Bell & DeYoung, Inc., Consulting Engineers	Design Subconsultant: Surveying, Traffic Analysis & Studies, Local Agency Coordination, Erosion Control
CCR Environmental, Inc.	Design Subconsultant: Ecology, Freshwater Aquatics

<b>KEY PERSONNEL</b>		
<b>Role   Personnel</b>	<b>Responsibility</b>	<b>Time Devoted to Project</b>
Lead Contractor Project Manager <b>John Ward</b>	Responsible for the Project overall and single point of contact for GDOT/SCDOT on all matters. The PM will also maintain a close liaison with the Project stakeholders. Overall function includes design, construction, and contract administration for the Project.	100% (Design) 100% (Const.)
Lead Design Consultant Project Manager, Georgia EOR – Bridge <b>Jeff Walters, PE</b>	Lead the overall design planning and execution to ensure the design is in conformance with the applicable Contract Documents and Design Standards. A Georgia licensed professional engineer who will provide responsible charge for the preparation, sealing, and issuing of the design documents for the structural bridge work. Acting as EOR for the bridge design and Lead Design PM, he will manage all design efforts for the Project.	100% (Design) 75% (Const.)
Georgia EOR – Roadway <b>Juan Restrepo, PE</b>	A Georgia licensed professional engineer who will provide responsible charge for the preparation, sealing, and issuing of the design documents for the roadway work in Georgia.	100% (Design) 25% (Const.)
S. Carolina EOR – Roadway <b>Bret Gillis, PE</b>	A South Carolina licensed professional engineer who will provide responsible charge for the preparation, sealing, and issuing of the design documents for the roadway work in South Carolina.	100% (Design) 25% (Const.)
Contractor Superintendent <b>Paul Kishel</b>	Oversees all construction work. He will coordinate with the Project Management (including safety and quality) to ensure work meets or exceeds Project requirements.	35% (Design) 100% (Const.)
Construction Quality Control Manager <b>Scott Overby</b>	Responsible for day-to-day construction quality of the Project, implementing quality planning, training, and managing the construction team's quality management processes.	35% (Design) 100% (Const.)
Project Executive <b>John Meagher</b>	Responsible for developing the overall strategic management program for the Project, developing project goals, and monitoring project program performance.	25% (Design) 25% (Const.)
Local Agency Coordinator <b>Clint Parker, PE, PMP</b>	Organize interagency communications with internal and external stakeholders including events and workshops to promote the successful coordination of Project activities and delivery.	50% (Design) 50% (Const.)
Technical Advisor, Quality Control and Standards <b>Paul Liles, PE</b>	Provide detailed technical oversight and direction on the Project and establish the Quality Management Plan. He will ensure that policies and procedures are adhered to and promote the successful delivery of the Project. With over 45 years of experience in the GDOT Bridge Office, he will provide the oversight to verify the delivery of a quality design.	50% (Design) 25% (Const.)
Lead Quality Control Engineer <b>Sammy Powell, PE</b>	Provide proactive governance and risk management for the overall quality delivery of the Project. Verify the execution and delivery of day-to-day tasks of the design and construction project team.	50% (Design) 50% (Const.)
Construction Safety Manager <b>John Hogan</b>	Ensures compliance with the Project's Health and Safety Program. He will also be the point of contact for all outside entities on safety including OSHA.	50% (Design) 100% (Const.)
Lead Ecologist and Fresh Water Aquatics <b>Christian Crow</b>	Provide surveys, field testing, and reporting to identify environmental risks and provide mitigation procedures associated with potential impacts to the area's natural ecosystem.	25% (Design) 45% (Const.)

<b>CONSTRUCTION TASK MANAGERS</b>	
<b>Role   Personnel</b>	<b>Qualifications &amp; Experience</b>
Assistant Project Manager <b>Travis Tyler</b>	Over 20 years of experience in project management for a total of 65 roadway and bridge projects in 29 counties in Alabama.
Assistant Construction Quality Control Manager <b>James Charles, PE</b>	Licensed PE in FL, he has over six years of experience ensuring safety, quality, and mobility on large road and bridge projects over water including the Veterans Memorial Bridge Project, Long Key Bridge Project, and Isle of Capri & Isle of Palms Bridge Replacement projects.

## DESIGN TASK MANAGERS

Role   Personnel	Qualifications & Experience
Permitting <b>Gary Tillman, PE</b>	Licensed PE in four states including GA, Gary has over 26 years of professional engineering experience with 18 years of experience in Erosion and Sediment Pollution Control and permitting for numerous Interstate projects in the Southeast.
Permitting <b>Jeff Simmons</b>	A Professional Wetland Scientist, Jeff has more than 26 years of experience supporting transportation projects in preparing Federal and State permit applications and NEPA documents. He has extensive experience monitoring for permit compliance, environmentally-sound construction sequencing, and erosion and sediment controls on several design-build projects.
Hydraulics/ Drainage <b>Robbie Frizzell, PE</b>	Licensed PE in nine states including GA & SC, Robbie has over 33 years of experience in drainage design and drainage impact studies including experience on the Savannah River and Augusta Canal.
Traffic/MOT <b>Rich Mielke, PE</b>	Licensed PE in GA, Rich has over 20 years of design experience specializing in road improvement projects, traffic signal designs, traffic impact studies, signal warrant studies, and traffic calming projects.
Environmental <b>John Eden, PE</b>	Licensed PE in GA & SC, John has more than 17 years of experience in preparing National Environmental Protection Act (NEPA) Environmental Assessment and Categorical Exclusion documents for highway development projects throughout the Southeast, notably for GDOT and SCDOT.
Geotech <b>Robert Thompson, PE</b>	Licensed PE in eight states including GA, Robert has spent the last 13 years serving as a geotechnical engineer or project manager on design-build bridge projects varying from large river crossings to Interstate Highway bridges.
Geotech <b>Scott Thomson, PE</b>	Licensed PE in GA & SC, Scott has over 24 years of professional engineering experience with 15+ years as a Principal Engineer in geotechnical engineering and construction materials testing for the GDOT.
Surveying <b>Nathan Brown, PLS</b>	Licensed PLS in GA, Nathan has more than 18 years of experience in all surveying, SUE, and GIS operations including database maintenance, map production, and survey project management. He is responsible for the firm's work completed for GDOT in area classes 5.01, 5.02, and 5.03. He is familiar with the GDOT Automated Survey Field Manual and Design Policy and Guides' Right-of-Way Manual.
Utilities Coordination <b>Randy Sanborn, PE</b>	Licensed PE in several states including GA & SC, Randy has over 30 years of experience in utility engineering. This includes utility coordination, utility impact analyses, and subsurface utility engineering (SUE).
Roadway <b>Maureen O'Brien-Pitts, PE</b>	Licensed PE in GA, SC & AL, Maureen brings 26 years of experience in project management and engineering design of transportation projects for Departments of Transportation.
Design Quality Control <b>Rick Day, PE</b>	Licensed PE in GA & SC, Rick serves as a Principal in Stantec's Transportation practice. He has 40 years of experience in the planning and design of highway and transportation systems throughout the southeastern United States.

**More LOCAL Equipment to start construction NOW. Johnson Bros. has the largest marine fleet of equipment and expertise in constructing foundations in identical subsurface conditions.**

**\$260M**



**FLEET**



**70+**  
**CRANES**

above 50 ton capacity

**135**



**BARGES**

### Current and Projected Workload and Backlog

Our construction Team currently has 18 active projects with an overall value of \$1,113,521,857 and a bonding capacity of \$5B. We are positioned to exceed the expectations of the project delivery through our qualified Team members, substantial equipment resources, and financial stability. Our Lead Design Consultant, FIGG Bridge Engineers, Inc., is nearing completion of design services on two major design-build bridges over navigable waterways - the \$800M New Harbor Bridge (US181) in Corpus Christi, TX and the \$130M New Cline Avenue Bridge in East Chicago, IN. FIGG's experienced team of engineers, technicians, and professionals are ready to start on this Project. **The entire team is available and fully commits its seasoned resources for a quality, expedient design and construction delivery of the Project.**

## PREVIOUS PROJECT RELATIONSHIPS

Project	Design-Build	Johnson Bros.	FIGG	McInnis	Project Status
Big Marco Island Bridge, Collier Blvd over E. Marco Bay, FL	✓	Lead Contractor	Lead Designer		Completed September 2011
I-59/I-20 Central Business District, Birmingham, AL	✓	Lead Contractor		Dedicated Subcontractor	Ongoing, Est. Comp. November 2020
New I-35W Bridge, Minneapolis, MN	✓	CM Services	Lead Designer		Completed September 2008

### Relationship of Team Members

We have successfully performed previous projects using the same Design-Build team as this Project. We have not established any joint venture agreements for this or any previous projects; however, our previous teaming relationships are shown in the table above.

### C.1.4.2 ORGANIZATIONAL COMMUNICATION

#### Working Together

Our Team will establish a working relationship between the executive management, project managers, and lower levels of decision makers through a partnering process. We will hold partnering meetings with a facilitator to address project progress, personnel relations, project issues, or other items that are needed to ensure Project success. The **project charter** will foster an environment of open communication and a commitment to meeting and exceeding the Project requirements. **Partnering sessions** will be held to maintain an open line of communication at all levels of the Project and to discuss project challenges.

The following **Task Force** teams will be formed to address key elements of the Project.

**Management Task Force** – will be organized to address DBE utilization, work force diversity, public information/involvement, safety, quality, schedule, change orders, construction, coordination with third parties, and overall project progress.

**Safety Task Force** – will proactively address all safety items related to the Project including training, activity hazards analysis, safe practices, and construction operations.

**Quality Task Force** – will ensure we are providing quality professional services and construction.

**Structures Task Force** – will develop plans and specifications and address all aspects of the bridge and structural design including:

- Bridge
- Retaining Wall
- Geotechnical Engineering
- Savannah River and Augusta Canal Hydraulics and Hydrology
- Agency Coordination

**Roadway Task Force** – will address the design of the roadway elements on both the Georgia and South Carolina approaches including geometrics, drainage, utility coordination, pavement marking, signing, and other miscellaneous items.

**Maintenance of Traffic (MOT) Task Force** – will develop traffic control plans and coordinate with stakeholders during various phases of construction.

These Task Force teams will encourage interaction between GDOT, SCDOT, and other stakeholders during design development and construction. Task Forces will meet weekly at our Project office.

#### Decision-Making Process

We are committed to resolving matters quickly and at the lowest level possible. Our philosophy is to give authority and accountability to our construction, design, and quality management teams at every level. Each individual knows that conveying accurate and timely information and proposing feasible and economic solutions will lead to the fastest resolution of issues. We use an Issue Resolution Ladder approach to solve issues in an organized and timely manner. The “ladder” mechanism avoids, and ideally eliminates, long and costly disputes by resolving issues early in the process before they escalate.



**The Big Marco Island Bridge (Judge SS Jolley Bridge), whose scope is just like yours, was delivered by Johnson Bros., FIGG, and Stantec, under budget, three months ahead of schedule, and with excellent safety including NO lost time incidents.**

This is accomplished by empowering key “on the ground” management leads with decision-making ability. As shown in the adjacent Internal Issue Resolution Ladder graphic, we have a plan to facilitate communication within our organization and foster expeditious resolutions. The key to this approach is the Task Forces that bring together the necessary individuals to resolve critical inter-team issues in a timely manner.

### Communication and Documentation

Coordination and communication between the various design disciplines, agencies, and contractors is critical. Weekly Task Force meetings will facilitate continuous communication, seamless transfer of information, and a “project-first” culture for success.

All design and construction activities will be tracked and recorded on the Project SharePoint site. All Team members will have access to this document management system during design and construction.

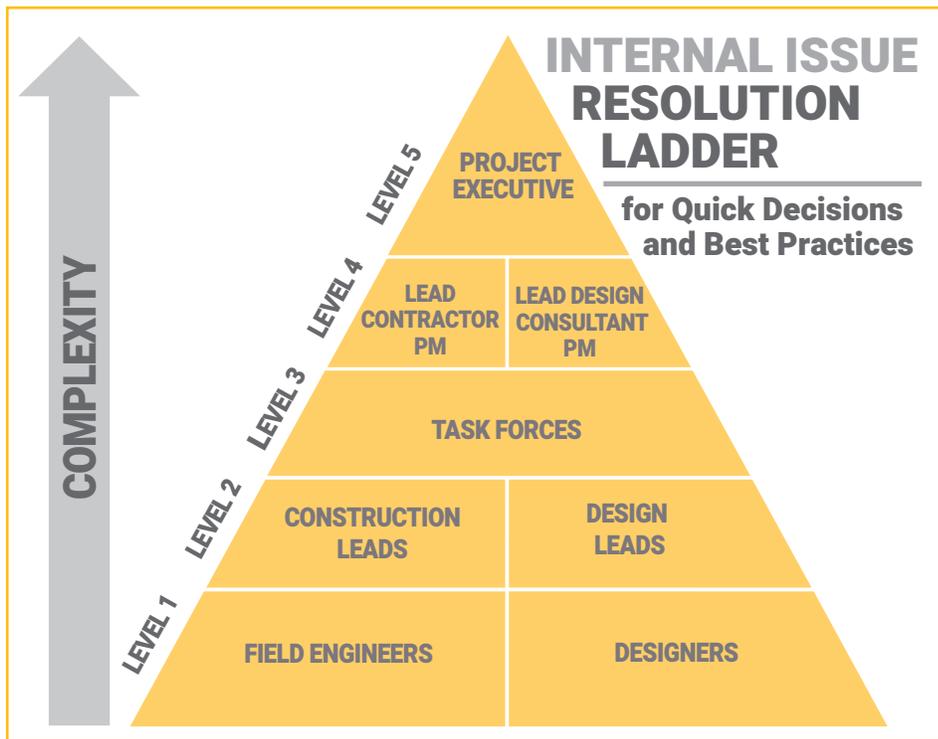
### Management Approach for Design and Construction

Our Design Team engineers will work collaboratively with construction personnel to integrate means and methods into the design. Our senior engineers have previously served in field positions on-site during the construction of multiple bridge projects. The lessons they learned will be incorporated into the design through the use of details preferred by contractors. **Our unique construction experience offers practical insight into the constructability of designs and promotes schedule and cost efficiencies.**

### Interface with Stakeholders

As part of the partnering process, Over-The-Shoulder (OTS) reviews will be held regularly with GDOT and SCDOT to allow the opportunity for comments early in the design process.

Our Team values the importance of maintaining transparency and open communication on a real-time basis



### BEST PRACTICES WILL DELIVER THE BEST PROJECT!

*The Johnson Bros. Team is dedicated to seamless team integration for the success of your I-20 at Savannah River Project with a co-located office and through proactive, constant communication.*

with GDOT, SCDOT, FHWA, GDOT's consultants, Augusta-Richmond County, North Augusta SC, Aiken County, Edgefield County, and other stakeholders. **Our Team will identify individual points of contact for all identified major stakeholders and incorporate these individuals into periodic status update meetings.**

Our PICP will utilize all available technology to provide maintenance of traffic and construction information to the traveling public and law enforcement agencies as described in Section C.1.3. The implementation of the PICP will

begin at Project kick-off and coordination with stakeholders will be maintained throughout the life of the Project.

Our Team will rely on the proven expertise of local consultant, HGB, to collaborate with local authorities and outline a comprehensive communications protocol. This extra level of community outreach will benefit the local citizens and traveling public by providing assistance beyond the Project limits. **Monthly coordination with local agencies will ensure community safety with open lines of communication.**



We will use a temporary pedestrian walkway canopy to protect users of the Towpath Trail during construction.

- ✓ **Emergency Contacts (EMS, Fire, Police, HAZMAT, etc.)**
- ✓ **Hospital and Clinic Locations**
- ✓ **Emergency Access and Egress (Project Site Map)**
- ✓ **Jobsite Security**
- ✓ **Utility Providers**
- ✓ **Hurricane Protection and Evacuation Plan**
- ✓ **Marine Emergency Contacts (US Coast Guard, Sheriff Patrol, etc.)**

Johnson Bros. has an excellent safety record with a current EMR of .84 including over a million man-hours without a lost-time injury, and has been recognized with the ENR Mid-Atlantic Region Best Project Safety Award (2014), RHCA John Kelly Safety Award (2016), and numerous FTBA safety awards.

With the largest marine fleet and experienced staff, Johnson Bros. Corporation has an extensive history of construction activities on floating equipment and working over or near water. **Project supervision will ensure that all waterway operations are performed in accordance with the established safety procedures** and all federal, state, and local regulations. We will establish local safety procedures to identify access and egress for waterway activities. Contact information and emergency procedures will be coordinated with the US Coast Guard, local sheriff offices, and the Augusta Canal Authority.

### C.1.4.4 DBE UTILIZATION

**Our philosophy is to partner with DBE vendors in a manner that adds value to the Project and complements our Team's core values.** A key component of our DBE policy is the strategic breakdown of scopes into smaller, more manageable activities **allowing local DBE firms the opportunity to participate on larger projects.** This results in more subcontracting opportunities, an expanded

pool of available skilled individuals, and the opportunity to employ more people from the local community.

Our company mentorship program will be implemented to provide training and guidance to the participating DBE firms. This opportunity will facilitate the growth of local DBE firms. **Our philosophy is to build long-standing business relationships with local DBE organizations.**



In addition to our local design DBE Team members, Long Engineering, Inc. and Contour Engineering, LLC, we have established a portal on the Johnson Bros. Corporation website to provide opportunities for DBE businesses to participate in the construction of this Project, including bidding.

Our team has contacted DBE firms and developed **a list of subcontracting / supplier opportunities that will allow our team to successfully surpass the Project's 11% DBE goal.** It is also our standard practice to continue to reach out to DBE vendors during construction. We will partner with as many local qualified subcontractors and vendors as possible in order to continue our longstanding tradition of meeting or exceeding Project goals.

We always make a good faith effort to achieve or exceed the proposed DBE goal participation. We will engage DBE firms in many aspects of the work throughout the life of the Project including design and construction. We will promote the use of DBE firms and increase their exposure on the Project. Transparent opportunity and equality are fundamental to our success as a Team. On our last three bridge and highway projects we successfully surpassed the DBE goal by nearly 5%. This demonstrates our commitment to adhering to our policy of meeting or exceeding the Project goal. We intend to continue these efforts with GDOT and SCDOT.

### C.1.4.3 SAFETY PLAN

**Our goal, mission, and passion is to provide a safe workplace for our employees and a safe environment for the traveling public.** Our Safety and Health Plan and our Project Safety Forms and Procedures Manual are designed to assist our Project Management (PM) Team in maintaining a safe worksite.

The **Safety and Health Plan provides for the safety and health of our employees and other individuals affected by their activities and for the protection of property and the environment.** Additionally, the Plan provides for coordination among various Contractors' individual safety programs. Our Safety and Health Plan applies to all Team Members and subcontractors performing work on the Project.

The **Project Safety Plan will incorporate jobsite specific items to ensure safety during the entire term of the Project,** such as:

**On their ongoing SELA Army Corps of Engineers Canal Widening Project, Johnson Bros. has over 1300 days safe.**

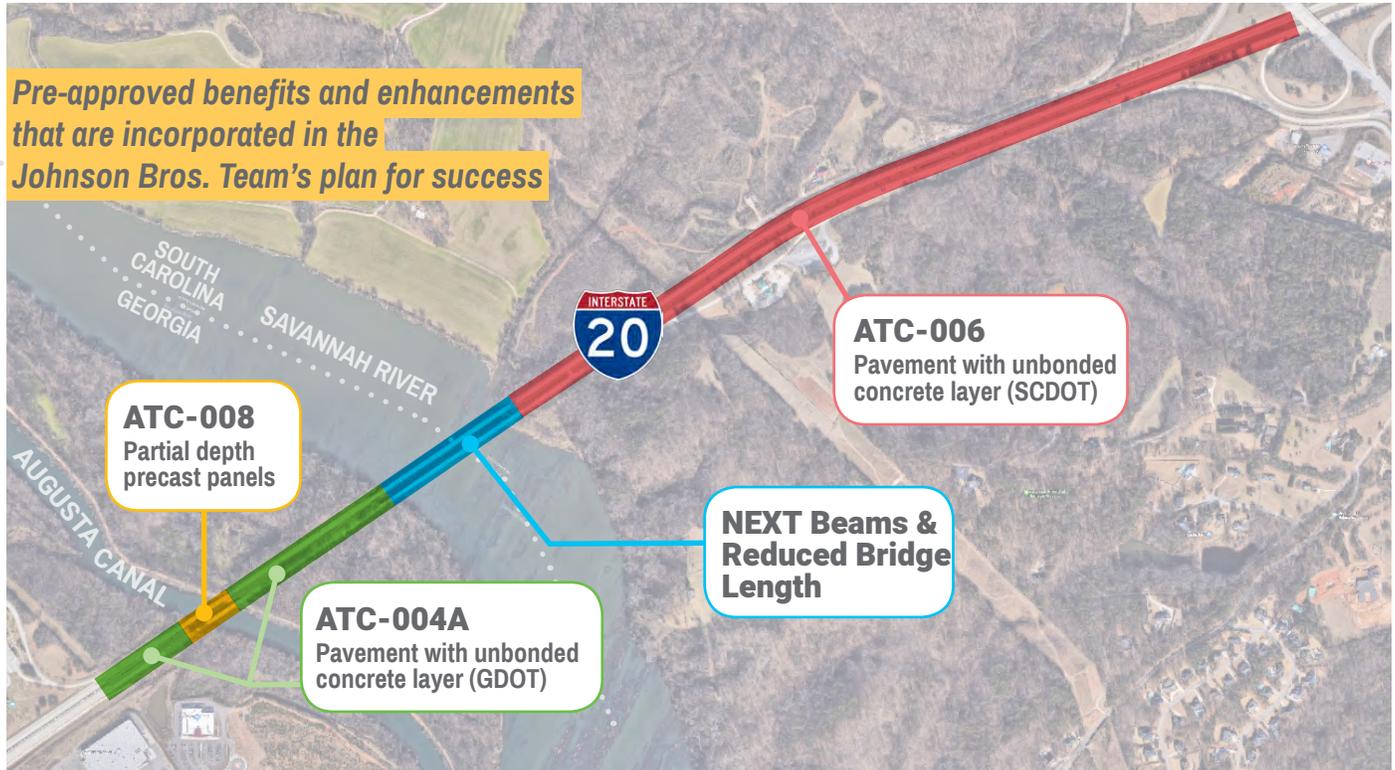


# C.2

## PROJECT DIFFERENCES FROM REFERENCE INFORMATION DOCUMENTS (RIDS)

# PROJECT DIFFERENCES FROM RIDS

**Pre-approved benefits and enhancements that are incorporated in the Johnson Bros. Team's plan for success**



Based on our Team's approach to the delivery of the Project, our design and construction plan differs materially from the Costing Plans provided in the Reference Information Documents (RIDs). The project differences from the RIDs are indicated in the diagram above and summarized below. Additional details are provided in the Schematic Drawings in the Appendix.

## **ATC-004A – Pavement with Unbonded Concrete Layer (GDOT)**

We will use a 12" unbonded concrete overlay with a 3" asphalt separation layer on top of the existing pavement structure to meet the aggressive project construction schedule. The asphalt separation layer and concrete pavement will remain the same thickness as stipulated in the RFP. The existing concrete pavement will be used in lieu of the Graded Aggregate Base (GAB). The use of an unbonded concrete overlay eliminates the need for removing the existing pavement, preparing the subgrade, and placing and compacting the GAB. This significantly reduces roadway construction time and susceptibility to weather delays. This ATC was approved in the GDOT letter dated 9.6.18.

## **ATC-006 – Pavement with Unbonded Concrete Layer (SCDOT)**

We will use a 12" unbonded concrete overlay with a 2" asphalt separation layer on top of the existing pavement structure to meet the aggressive project construction schedule. The asphalt separation will be increased to 2" and the concrete pavement will remain the same thickness as stipulated in the RFP. The existing concrete pavement will be used in lieu of the GAB. The use of an unbonded concrete overlay eliminates the need for removing the existing pavement, preparing the subgrade, and placing and compacting the GAB. This significantly reduces roadway construction time and susceptibility to weather delays. This ATC was approved in the GDOT letter dated 8.30.18.

## **ATC-008 – Partial Depth Precast Panels**

We will use 4" partial depth precast panels and a 4" CIP deck for the new Augusta Canal bridge to accelerate the schedule and facilitate construction access. Panel fabrication will begin early and concurrent with the fabrication of FIB beams. Deck construction time will be reduced because

less time is required for forming, casting, and rebar placement. This ATC was approved in the GDOT letter dated 9.6.18.

## **NEXT Beams & Reduced Bridge Length**

The new Savannah River bridge will be constructed using precast NEXT beams with a 4" top flange that provides a built-in forming system for the 8" CIP deck. Deck construction time will be reduced because less time is required for forming, casting, and rebar placement.

The new bridge will be 1,250 feet long, which is approximately 70 feet shorter than the Costing Plans provided in the RIDs. The shortened bridge length meets the GDOT setback and FEMA No-Rise criteria and allows for faster construction. This results in an overall quicker project delivery because the bridges are on the Critical Path. A typical span length of 75 feet places only 13 bents within the banks of the Savannah River and meets the RFP requirements.

# C.3

## **CLOSURE DURATIONS, INTERIM COMPLETION, SUBSTANTIAL COMPLETION, AND FINAL ACCEPTANCE PROPOSAL - FORM M**

**FORM M**

**Closure Durations, Interim Completion, Substantial Completion, and Final Acceptance Proposal**

Proposer Name: Jobson Bros. Corporation, A Southland Company

The Proposer shall complete the fields below for each portion (segment) of the Work for which the Proposer will commit to an Interim Completion Deadline.

Required fields are identified with an asterisk (\*).

Interim Completion Deadline #1 - Open to Intersection Traffic (duration in Days from NTP 1 to Interim Completion Deadline #1)	1055
Interim Completion Deadline #2 - Open to traffic for EB lanes (duration in Days from NTP 1 to Interim Completion Deadline #2)	1111
Interim Completion Deadline #3 - Open to traffic for WB lanes (duration in Days from NTP 1 to Interim Completion Deadline #3)	822
* Substantial Completion Deadline (duration in Days from NTP 1 to achievement of Substantial Completion)	1146
* Final Acceptance Deadline (duration in Days after Substantial Completion to achievement of Final Acceptance)	120
* Total aggregate closure duration for EB lanes (in hours)	185
* Total aggregate closure duration for WB lanes (in hours)	185
* Closure duration for the single allowed Augusta Canal closure (in Days)	80
* Closure duration for allowed Augusta Canal towpath closure #1 (in Days)	12
* Closure duration for allowed Augusta Canal towpath closure #2 (in Days)	12

Date: SEPTEMBER 21, 2018

Proposer: FRANK RENNA

Signature: FRANK RENNA

Title: CEO / PRINCIPAL

Late afternoon rendering of the I-20 Bridge over the Savannah River looking north



Aerial view of the I-20 Bridge over the Savannah River looking north east [rendering]



**JOHNSON BROS.**  
CORPORATION

Driver's view of the I-20 Bridge over the Savannah River traveling east towards South Carolina [rendering]

