Response to Request for Qualifications

I-95 NORTHBOUND RAPPAHANNOCK RIVER CROSSING

Spotsylvania County, City of Fredericksburg, Stafford County, Virginia

State Project No.:	0095-111-270
Federal Project No.:	NHP-095-2(531)
Contract ID Number:	C00105510DB106

July 2, 2019

Submitted By:



In Association With:



3.2 Letter of Submittal



July 2, 2019

Mr. Suril R. Shah, P.E., DBIA Alternative Project Delivery Division Virginia Department of Transportation 1401 East Broad Street Richmond, Virginia 23219

I-95 Northbound Rappahannock River Crossing

Spotsylvania County, City of Fredericksburg, Stafford County, Virginia 3.2 Letter of Submittal

Dear Mr. Shah:

Shirley Contracting Company, LLC (Shirley), as the Offeror, is pleased to submit to the Virginia Department of Transportation (VDOT) our response to your Request for Qualifications (RFQ) for the project referenced above. With Dewberry Engineers Inc. (Dewberry) as our Lead Designer, Shirley offers VDOT an experienced Team with a proven track record of delivering design-build projects on time, under budget and with a partnering approach. As an example of our experience and our history working together as a team, Shirley and Dewberry have been awarded 43 design-build projects valued at more than \$4 billion.

3.2.1 - The full legal name and address of the Offeror is:

3.2.2 - Our Point of Contact is: Garry A. Palleschi, Vice President 8435 Backlick Road, Lorton, VA 22079 703-550-3579 (Phone) 703-550-9346 (Fax) gpalleschi@shirleycontracting.com Shirley Contracting Company, LLC 8435 Backlick Road, Lorton, VA 22079

3.2.3 - Our Principal Officer is: Michael E. Post, CEO 8435 Backlick Road, Lorton, VA 22079 703-550-8100 (Phone)

3.2.4 - Shirley Contracting Company, LLC, a limited liability company, will be the legal entity, will have financial responsibility for the Project and will have joint and several liability for the performance of the work. There are no liability limitations. Our bonding approach will be to provide performance and payment bonds for the total contract value and time period.

3.2.5 - The Lead Contractor for the Project will be Shirley Contracting Company, LLC and the Lead Designer will be Dewberry Engineers Inc.

3.2.6 - The full legal names and addresses of all affiliated and/or subsidiary companies of the Offeror are provided in Attachment 3.2.6.

3.2.7 - Signed Certification Regarding Debarment Forms for Primary and Lower Tier Covered Transactions are included as Attachments 3.2.7(a) and 3.2.7(b).

3.2.8 - Shirley is currently Prequalified (active status) with VDOT. Our Vendor Number is S018. A screen shot print out from VDOT's on-line Prequalified List is attached as Attachment 3.2.8.

3.2.9 - Included as Attachment 3.2.9, is a letter from our surety that provides evidence that we are capable of obtaining a performance and payment bond for the current estimated contract value, and that these bonds will cover the Project and any warranty periods.

3.2.10 - Virginia State Corporation Commission (SCC) and Virginia Department of Professional and Occupational Regulations (DPOR) registration information for all business entities on the Offeror's team are included in Attachment 3.2.10. Evidence of registrations and licenses are provided in the Appendix to this Statement of Qualifications (SOQ).

3.2.11 - The Shirley Team is committed to achieving the 12% DBE participation goal for the entire value of the contract.

On behalf of our Team, thank you for the opportunity to submit this SOQ and we look forward to partnering with VDOT and all involved to deliver another successful project.

Sincerely, Garry A. Palleschi

Vice President

1

3.3 Offeror's Team Structure



3.3 - Offeror's Team Structure

INTRODUCTION

The Shirley Team has the experience and personnel to successfully manage all elements of the I-95 Northbound Rappahannock River Crossing Design-Build Project (Project). Shirley, along with Dewberry are one of the area's most experienced design-build teams. Together, we have been awarded 43 design-build projects, including 21 for VDOT. Successful completion of these projects has provided our Team with experience that directly correlates to elements of this Project, including:

- ✓ Design and construction of interstate improvements;
- ✓ Maintaining safety and mobility during multi-stage construction;
- ✓ Successfully coordinating with multiple adjacent projects;
- ✓ Bridge construction in a constrained workspace over water; and
- ✓ Management of the acquisition of right-of-way and easements from multiple parcels.

In addition to this experience best qualifying our Team for this Project, our success is further exemplified by the awards we have received, including those shown in Table 1.

Table 1 - Shirley/Dewberry Project Team Awards	
Project	Award
I-64 Capacity Improvements - Segment I	• 2018 DBIA National Award of Merit
	• 2018 DBIA Mid-Atlantic Region Award of Merit
I-66 Widening	• 2017 DBIA Mid-Atlantic Region Award of Merit
Route 27/244 Interchange Modifications	2016 DBIA National Award of Merit
	2016 DBIA Mid-Atlantic Region Transportation
	• 2016 DBIA Mid-Atlantic Excellence in Engineering
	• 2016 HCCA Excellence in Infrastructure
I-66/Route 29/Linton Hall Road Interchange	 2016 ACEC Metropolitan Washington Engineering Excellence Merit Award
	• 2016 VTCA Transportation Engineering Award
InterCounty Connector - Contract C	2012 ACI Award of Excellence in Heavy Construction
	• 2012 ARTBA Globe Award
Route 28 Corridor Improvements PPTA	• 2012 NVTA Salute
	• 2004 Tower of Dulles Award
Dulles Greenway Capital Improvements	2008 DBIA Regional Design-Build Excellence Award

Our success on design-build projects is due in large part to the selection of personnel and team members, each with strengths that address critical project risks. The Team, with more than 17 years of design-build experience, is committing Key Personnel to address these risks. This experience facilitates development of a thorough understanding of each other's capabilities, enabling us to efficiently manage each discipline. Further, we bring additional design-build strength to the Project through our partners and specialty firms as shown in Table 2 and our Organizational Chart.



Table 2 - Shirley/Dewberry	Project Team Members
Firm	Role on Project
Dewberry	Dewberry Engineers Inc. (Dewberry) will be the Lead Designer. Dewberry has extensive design- build experience as the Lead Designer on all of Shirley's 21 design- build projects for VDOT. Dewberry is a nationally recognized engineering firm headquartered in Fairfax, Virginia and is ranked among Engineering News-Record's Top 25 highway design firms.
CONSE	Quinn Consulting Services, Inc. (Quinn) will provide the Quality Assurance Manager and Quality Assurance Inspectors for the Project. Quinn is a registered DBE in the Commonwealth of Virginia and specializes in providing Construction Management and Project Controls Services to governmental agencies and contractors.
SPECIALIZED ENGINEERING Engineers · Geologists · Inspectors	Specialized Engineering (SE) will provide QA material testing as a subcontractor to Quinn. SE's team of professionals and technical specialists provide expertise in the fields of geotechnical engineering, construction testing, and materials engineering and testing.
DMY	DMY Engineering Consultants, Inc. (DMY) will provide geotechnical investigations, testing, and analysis as a subconsultant to Dewberry. DMY is a registered DBE in the Commonwealth of Virginia whose expertise lies in providing geotechnical site investigation, drilling, instrumentation, geotechnical design and analysis, laboratory testing, and construction materials testing/inspection.
	Quantum Spatial, Inc.(Quantum) will provide aerial mapping as a subconsultant to Dewberry. Quantum is a professional geospatial mapping organization with a proud record of performance providing similar services to multiple state, local, federal, and private organizations.
SURVEYING + AERIAL MAAPPING + ERGINEERING	Surveying & Mapping, LLC (SAM) will complete utility designations and test pits as a subconsultant to Dewberry. They specialize in providing comprehensive subsurface utility engineering services focused on reducing utility conflicts and utility relocation costs.
SKELLY AND LOY	Skelly and Loy, Inc. (Skelly) will be completing noise modeling and analysis to provide the final noise abatement design report as a subconsultant to Dewberry. They provide professional engineering and environmental services to various industries and businesses, government, and the private sector throughout the United States.
DIVERSIFIED PROPERTY SERVICES INCORPORATED	Diversified Property Services Inc., (Diversified) a registered DBE in the Commonwealth of Virginia, will manage the right-of-way and land acquisition services. As a VDOT prequalified ROW acquisition firm, they will handle all areas of appraisal and appraisal review services, negotiations, acquisition of rights, expert witness testimony, and relocations.
	Key Title (Key) will provide title research and settlement services for properties acquired on the Project. Key has closed over 50,000 real estate transactions since 1973 and has accumulated a wealth of experience in all aspects of the real estate closing process.

3.3.1 Key Personnel

Information on Key Personnel in Table 3 is included as Attachment 3.3.1 - Key Personnel Resumes.

Table 3 - Key Personnel		
Key Personnel Position	Name	Firm
Design-Build Project Manager (DBPM)	Robbie Roberts	Shirley Contracting Company, LLC
Entrusted Engineer In Charge (EIC)	Rob Coffee, PE	Shirley Contracting Company, LLC
Quality Assurance Manager (QAM)	Scott Shropshire, PE, CCM	Quinn Consulting Services, Inc.
Design Manager (DM)	Jeremy Beck, PE	Dewberry Engineers Inc.
Construction Manager (CM)	Greg Johannes	Shirley Contracting Company, LLC
Lead Structural Engineer	Ross Burhouse, PE	Dewberry Engineers Inc.



Each individual was selected because of their extensive experience in the design, construction, and administration of design-build projects, as well as overall design and construction expertise. Designbuild projects require a high level of coordination and integration among the various disciplines. It is critical that Key Personnel have an extended history of working together and an understanding of how all disciplines interact. A successful team must integrate the design, construction, QA/QC, ROW, utility, permitting, safety, third party coordination, and public relations disciplines into a single, cohesive project.

3.3.2 Organizational Chart

The Organizational Chart at the end of this section outlines the structure of our proposed Team. The "chain of command" shown in the chart by solid lines represents the primary reporting relationships. Dashed lines represent communication relationships between major project disciplines and participants. This structure has been created to specifically address the overall project scope, the anticipated schedule for completion, and risks involved in meeting project objectives. The following narrative describes the functional relationships and communications among our Team:

Design-Build Project Manager, DBPM (Robbie Roberts) is tasked with full and complete authority over all aspects of the Shirley Team's responsibilities. In addition, he is the primary point of contact with VDOT after award of the Project and will manage coordination with adjacent ongoing projects. Robbie has the ultimate responsibility for contract management and to coordinate and integrate all project disciplines. He has full authority to resolve all disputes or disagreements through best efforts and good faith negotiations with VDOT representatives. Robbie will lead coordination efforts with third-party stakeholders. He will also work with VDOT to coordinate public outreach efforts, public meetings, and answer project inquiries.

Entrusted Engineer in Charge (EIC) (Rob Coffee, PE) is fully integrated among the project team including subconsultants and will be responsible for ensuring that all engineering work for the Project is integrated and otherwise delivers a safe, functional project. Rob will communicate regularly with VDOT, reporting directly to the DBPM and have direct lines of communication with the Design Manager, Construction Manager, and Quality Assurance Manager. As a registered PE in Virginia, Rob will provide the necessary expertise and experience to ensure that complex engineering decisions are made by professional engineers licensed in Virginia and that each engineer has demonstrated experience working with other disciplines involved in the design.

Quality Assurance Manager, QAM (Scott Shropshire, PE, CCM) reports directly to the DBPM and is completely independent from the construction operations and QC inspections. Scott has full responsibility for assuring the Project is in compliance with the Contract Documents and environmental permits. He manages all aspects of the QA program, and directs the QA inspections by the QA inspectors and independent QA testing technicians. Scott will manage a comprehensive system of QA/QC documentation and, based on all testing levels (QC, QA, and Owner), verifies the acceptability of work and certifies compliance with the Contract Documents as part of the application for payment. This position is unique in that Scott has the autonomy to report findings directly to VDOT in addition to the DBPM, and if work is not in compliance with the Contract Documents, he has the authority to unilaterally halt or suspend work, and the responsibility to assure corrective action is taken before accepting work and certifying payment.

Design Manager, DM (Jeremy Beck, PE) reports to the DBPM and has overall responsibility for management of the design process. Jeremy's role includes integrating the various design disciplines with the construction, ROW, utility, permitting, and safety elements. He establishes and oversees the Design QA/QC program ensuring that design QA and QC functions are exclusively designated and not assigned to those with conflicting duties or production work, as outlined in the VDOT Minimum Requirements for Quality Assurance and Quality Control for Design-Build



and P3 Projects (2018). Jeremy remains involved throughout the construction phase to support implementation of the design, review shop drawings, attend regular progress and public meetings, and respond to all construction questions and RFI's.

Construction Manager, CM (Greg Johannes) reports to the DBPM and is responsible for managing all aspects of construction and the QC process. Prior to construction, Greg facilitates constructability reviews for design, works closely with the Utility Manager to plan relocations, and coordinates with the ROW Manager to prioritize and schedule acquisitions. During construction, he will be on site at all times, updating the Project Schedule, and coordinating with the QC Manager, Project Manager, and Superintendent ensuring construction materials and activities are in accordance with the Contract Documents. Greg oversees a system ensuring qualified personnel monitor, inspect, document, and maintain compliance with environmental permits. He communicates with the Design Manager arranging for design engineer's review of construction submittals and shop drawings.

Lead Structural Engineer (Ross Burhouse, PE) reports directly to the Design Manager and is responsible for the design of all structural elements with a key focus on the challenges of the Rappahannock River bridge crossing. During design, he interfaces with roadway, hydraulic, and geotechnical engineers to ensure the structural plans are coordinated with those design disciplines and accurately account for unique design requirements associated with them. During construction, Ross will oversee the review of all shop drawings and responses to RFI's and questions, and will direct the preparation of bridge load ratings and as-built documentation.

Value Added Positions

To further mitigate risks and address key Project elements, our Team is exceeding the Request for Qualifications (RFQ) requirements by committing the Value Added personnel shown in Table 4. These individuals play an important role in our ability to mitigate risk, complete the work ahead of schedule, under budget, and in a safe, quality manner with minimal resource requirements from VDOT.

Table 4 - Value Added Personnel		
Value Added Position	Name	Firm
Lead Temporary Traffic Control Engineer	Jerry Mrykalo, PE, PTOE	Dewberry Engineers Inc.
Environmental Scientist	Beth Patrizzi	Dewberry Engineers Inc.
Environmental Compliance Manager	Chris Monahan, REM	Shirley Contracting Company, LLC
Safety Manager	Sean Knick	Shirley Contracting Company, LLC
Public Relations Manager	Jennifer Alcott	Shirley Contracting Company, LLC

Lead Temporary Traffic Control Engineer (Jerry Mrykalo, PE, PTOE) reports directly to the Design Manager and is responsible for all temporary traffic control design elements including TTC plans and TMP development. Jerry also provides expertise and monitoring of traffic plans throughout design and construction to ensure safe and efficient operations are always maintained. As a Professional Traffic Operations Engineer (PTOE), Jerry has successfully led the traffic engineering design on more than 20 design-build projects, including 4 projects on I-95. As a VDOT Certified Work Zone Traffic Control training instructor, Jerry will also provide the added value of safety training tailored to the unique project challenges.

Environmental Scientist (Beth Patrizzi) brings extensive experience related to obtaining all necessary environmental permits required for the Project. Beth has direct working relationships with each of the permitting agencies who will be involved in permit approvals. Beth will coordinate



project elements associated with the NEPA re-evaluation such as threatened and endangered species, hazardous materials, and other environmental assessment elements. In addition, she will coordinate and obtain Section 10, Clean Water Act (CWA) Sections 404/401, and NPDES Section 402 regulatory permitting and mitigation. Beth will report directly to the DM but will also work extensively with the DBPM, Utility Manager, and Construction Manager to ensure permits are consistent with the limits of impacts required by the design and also adequate to accommodate construction. During construction, she will work closely with the ECM to oversee all permit monitoring and reporting efforts to ensure compliance with environmental permit requirements.

Environmental Compliance Manager (Chris Monahan, REM) reports to the Construction Manager and is responsible for ensuring compliance with all environmental commitments during construction. He will provide oversight and monitoring of environmental compliance with all Water Quality and DEQ General Discharge Permitting requirements. Chris brings 20+ years of environmental education and experience to the Project as Shirley's in-house Environmental Manager. Chris and his staff will perform the twice weekly environmental compliance inspections and complete the VDOT Form C-107 as required. Chris and staff will re-inspect all noted deficiencies and ensure timely correction of all issues. Chris will also oversee activities and interaction with environmental regulatory agencies and, in coordination with Dewberry, perform all required monthly water quality permit inspections and reporting. During design, he will review plans to provide feedback and comments including placement and sequencing of critical Phase 1 erosion and sediment controls.

Safety Manager (Sean Knick) reports to the DBPM and will review field activities to provide a safe environment for VDOT, construction personnel, and the traveling public. Safety is one of our core values and ensuring the safety of the public is paramount. Sean will train and inform our Team of project specific safety hazards and enforce industry safety standards and Shirley's Corporate Safety Policy.

Public Relations Manager (Jennifer Alcott) reports to the DBPM and will coordinate and execute public outreach activities. Serving as a liaison between VDOT, the traveling public, and other stakeholders, she will advise on construction operations and their potential impacts. Working closely with VDOT, she will develop communication programs and strategies to achieve project goals and convey key project concepts to communities of interest. Jennifer has over 30 years of experience in this role and has worked on several of Shirley's recent high profile projects, including Dulles Corridor Metrorail, Silver Line Phase 2, and the Route 7 Corridor Improvements Projects.



3.4 Experience of Offeror's Team



3.4 - Experience of Offeror's Team

Please see Attachments 3.4.1(a) Lead Contractor Work History Forms and Attachments 3.4.1(b) Lead Designer Work History Forms in the Appendix.

3.5 Project Risks

3.5 - Project Risks

Critical Risk #1 - Adjacent Project Interface

Why The Risk Is Critical

The I-95 Northbound Rappahannock River Crossing Project (Northbound Project) is immediately adjacent to and overlaps with the I-95 Southbound CD Lanes – Rappahannock River Crossing Project (Southbound Project) as well as the I-95 Express Lanes Fredericksburg Extension Project (Fred-Ex). This concentrated work constitutes over \$525 million worth of infrastructure enhancements which will be completed concurrently, as shown in Figure 1.



Figure 1 - Concurrent Project Development and Construction.

Coordination with the ongoing Southbound and Fred-Ex Projects will not only be critical during construction, but critical from the outset of design and continue through the environmental permitting, right-of-way acquisition, and utility relocation phases. As is evident from the information provided with the RFQ documents, overlapping project areas could result in previously approved or completed work needing to be redone as part of a subsequent project. Further, any schedule changes or delays to a preceding project may adversely impact the schedule on the subsequent project(s). It is these overlapping priorities, schedules, scope of work, permitting, and requirements of all three projects that make this a critical risk to the Northbound Project.

Impact On The Project

The critical disciplines that could be impacted by the adjacent Projects are outlined below:

- **Design:** As an earlier project completes design or issues a plan revision or field change, conditions for the successor project(s) may be affected. Elements such as roadway or ramp alignment and grade, right-of-way acquisitions, utility relocations, storm outfall conditions, and other interdependent items may be affected. Preceding project adjustments that are not disseminated to, or understood by, the successor project will have a high likelihood of adversely impacting both projects, third party stakeholders, and the public. Other areas of critical impacts to design from the Southbound and Fred-Ex Projects could occur because of the following:
 - » *Temporary Traffic Control (TTC) Design:* Development of TTC plans for the Northbound Project must account for traffic patterns for the anticipated sequence and schedule of work. These plans must also accurately account for the sequence and schedule of the Southbound and Fred-Ex Projects. However, each of those project's schedule, sequence and priorities could change at any time and cause delays and-or resequencing of the Northbound Project.
 - » Bridge Substructure & Span Configuration Layout: Design of an optimized span layout and pier foundation locations must account for not only scour and H&HA conditions of the existing and new Southbound Project bridges, but also for the temporary causeway



configuration, access restrictions during construction, and overlapping work areas, shown in Figure 2. This may require adjustment to the number and locations of piers to ensure construction of both projects can occur simultaneously in order to avoid construction and/or permitting delays.

» *Right-of-Way and Easement Impacts:* Many of the same properties impacted by the Northbound Project are also being impacted by the Fred-Ex Project, as highlighted in Figure 3. Ongoing impacts, property owner coordination,



Figure 2 - Southbound Project Work Area.

negotiations, and acquisition timing could result in "gaps" or discrepancies to the ROW Plans developed as part of the Northbound Project. In addition, these issues could delay and/or result in unexpected costs for the Northbound Project. Further, it is our understanding that the Fred-Ex Project design-builder is financially at risk for a portion of the acquisition costs, potentially limiting their ability to accommodate the Northbound Project acquisitions.

- Permitting: Permits obtained by the Southbound and Fred-Ex Projects may impact obtaining coverage for the Northbound Project and result in delays and/or additional costs. For example, the conditions and timing of the Southbound Project's causeway permit could affect our ability to obtain the necessary permits to modify and construct the causeway needed for the Northbound Project.
- *Construction:* Logistical conflicts may easily arise and negatively affect one or more of the three projects. In addition to overlapping construction areas, these could include lane closures, material



Figure 3 - ROW Overlapping Between the Fred-Ex and Northbound Projects.

stockpile and staging locations, construction access, temporary and permanent sign placement, information provided to the public, erosion and sediment control items, and others. Changes to construction sequencing or priorities of any single project could result in schedule delays, the need for re-work, and additional costs to the other project.

Mitigation Strategies

Effective mitigation of this risk must begin during the development of our Team's Technical Proposal. Our Team will identify specific areas of overlap and conflict early so that each can be addressed appropriately. This will occur through an integrated process among the design, construction, permitting, right-of-way, utility, and schedule disciplines. Any concerns identified, as well as their potential solutions, will be discussed internally and with VDOT during the Proprietary Meetings. At a minimum these discussions will identify a necessary path forward, and ideally may eliminate some of the concerns altogether.

As the Project moves past Award and into the development phase, our integrated approach will continue in earnest. Points of contact and lines of communication between all three projects will be initiated and continue until final completion. Our Team will advocate for a regional task force that could include representation from VDOT, public agency stakeholders, and the Southbound



and Fred-Ex Project design/build teams. The intent of the task force will be to establish an effective means to coordinate design, construction, schedules, permitting commitments, right-of-way status, utility relocations, and logistical issues to streamline the decision-making process.

Our Team brings demonstrated experience on these multiple project coordination challenges. Our proposed DBPM and Construction Manager are currently leading the efforts on the I-64 and I-95 corridors and coordinating with multiple adjacent projects, including the Fred-Ex Project. More specifically related to issues that may arise, our Team's approach to mitigating these risks include:

- *Design:* We anticipate that Plans for the Southbound and Fred-Ex Projects will be approved by the time our design phase begins. Therefore, it will be crucial for our Team to obtain these plans, details, and calculations and reflect them in our design. Challenges or conflicts that arise as our design progresses will be immediately brought to the attention of the DBPM, VDOT, and the other design/build teams for discussion and resolution.
- Right-of-Way: The locations, limits, and timing of acquisitions for the other projects will be integrated into our design and schedule so that conflicts or overlaps can be identified early. Where possible, we will modify our design and/or schedule to eliminate or minimize the conflicts. Where the timing of acquisitions overlap, we will discuss with VDOT opportunities to combine acquisitions, amend offers, or expedite settlements. Regular coordination and communication between teams will ensure any right-of-way or easement changes are identified early, allowing updates to be made without impacts to the overall acquisition schedule.
- *Utilities:* As part of the early coordination with adjacent projects, we will obtain their planned utility relocations design and schedule and integrate into our plans. As our design progresses, our Utility Manager will review conflicts that arise and determine whether they can be eliminated or reduced by a design revision. Remaining conflicts will be reviewed with the utility owner and the adjacent project to create solutions that minimize the risk of delay to either project, and may include a combined relocation, alterations to a sequence of work, or adjustments to the schedule.
- Permitting: Critical to mitigating the risk of permitting conflicts will be to obtain all active permits to understand their requirements and commitments. Our Environmental Scientist will meet with each permitting agency to clarify limitations of these permits, permitting needs of the Northbound Project, and timing of each. A key goal of these discussions will be to resolve any conflicts that arise between permitting requirements of the multiple projects and determine a clear path forward. For example, one approach with the agencies for the permit covering the causeway in the Rappahannock River is to transfer the Southbound Project's permit to our name and continue coverage. These strategies will then be incorporated into our schedule and communicated to the Team. A comprehensive permit monitoring plan will be developed to ensure proper controls are in-place and maintained, overlapping or conflicting controls are avoided, and inspection and documentation of issues are properly identified and submitted to the permitting agencies.
- *Construction:* Throughout the design phase, areas of overlapping construction between adjacent projects will be identified and coordinated. Where design can be adjusted to eliminate or minimize these conflicts, options will be reviewed. For other areas, the schedule will be evaluated and where feasible, adjustments to the sequence of work will be made. Daily lane closure schedules will be created and coordinated through the VDOT's LCAMS to avoid conflicts. Staging areas in use or planned by adjacent projects will be identified and incorporated into our planning process.

Role of VDOT and Other Agencies

In order to establish an effective coordination plan between the three concurrent projects, we anticipate VDOT's active participation throughout all phases. This will begin in the RFP phase of the procurement through the Proprietary Meeting process. Recognizing that adjacent project



coordination is our responsibility post Award, we will lead efforts to integrate all parties, including VDOT, FHWA, local authorities, and permitting agencies, into the decision making process.

Critical Risk #2 - Rappahannock Bridge Constructability Challenges

Why the Risk is Critical

A key feature of the Project is the proposed 3-lane bridge carrying proposed northbound I-95 over the Rappahannock River. The RFQ shows this structure to be located between the existing northbound bridge and the southbound bridge currently under construction as part of the Southbound Project. Similar to our Dulles Greenway Bridge Widening over Goose Creek Project shown in Figure 4, the constructability of this bridge is challenging due to the constrained width between the bridges, the height above the river, and the overlapping schedules of the two projects. Because of these concerns, the design of this bridge will be heavily dictated by how the structure can be built, meaning that resolution of



Figure 4 - Constrained Bridge Construction over water.

constructability issues must be determined prior to design commencement. These issues combine to make constructability of the Rappahannock River bridge a critical risk to the Project and include the following:

Northbound Bridge Constructability: Horizontal and vertical bridge construction space constraints will affect the bridge design by limiting the span lengths and girder spacings. This, in turn, will affect critical schedule and cost components such as the number and location of piers, permitting requirements in the river, maintenance of traffic sequences, and the overall Project schedule for completion. Solutions to these issues will be critical to address early in design and will need to consider the following elements:

- Available work area for crane access;
- Location of the causeway;
- Lift weights of required structural members;
- Physical obstructions created by completed elements, such as substructure piers, obstructing erection of subsequent superstructure elements, and
- Physical obstructions created by the existing northbound Bridge and the southbound bridge currently under construction.

Southbound Bridge Schedule Impacts: The overlapping schedule with the Southbound Project could impact this Project in several ways:

- With Award anticipated in the spring of 2020, construction of the Northbound Project bridge would likely start in the spring/summer of 2021; however, as shown in Figure 1, the Southbound Project is not scheduled for Final Completion until Spring 2022, thus potentially delaying the anticipated start of work;
- The causeway for the Southbound Project appears to be located in the same location as the Northbound Project bridge footprint, potentially delaying the start of Northbound Project bridge construction; and
- The permitting requirements for this Project may overlap and conflict with active permits in place for the Southbound Project. It is unclear at this stage of the procurement how the permitting agencies would resolve those overlapping permits.



Impact on the Project

This risk could have multiple impacts resulting from constructability issues. These include:

- Additional environmental and permitting impacts;
- Increased scour concerns due to pier locations;
- Additional geotechnical investigations in the River;
- Potential schedule and Project completion delays;
- Additional costs to address constructability and design issues; and
- Long term maintenance inspection consequences

Mitigation Strategies

Addressing bridge constructability will be a key focus of our Team during preparation of our Technical Proposal and immediately upon Award. Meeting this challenge can only be achieved through implementation of a fully integrated bridge constructability review with design, permitting, right-of-way, and construction. We will take the following steps towards mitigating this risk:

- Meet with VDOT and the Southbound Project Design-Build team to begin coordination of design, schedules, and permitting between the two projects as early as possible;
- Establish a working group comprised of construction experts, design engineers and permitting personnel to evaluate all options for bridge construction, including:
 - » Span configurations (length/girder spacing) to determine pier locations, girder & weight sizes;
 - » Use of alternate materials such as lightweight deck concrete to minimize girder sizes;
 - » Detailed Girder Erection Plans including placement and sizing of cranes on existing bridge decks, causeways, and approaches. Our Team already preliminarily explored the feasibility and requirements of staging a crane on the existing I-95 Northbound bridge deck as highlighted in Figure 5.
 - » Review feasibility of "launching" techniques to erect superstructure elements;
 - » Review material delivery issues,
 - » Maintenance of traffic (MOT/TTC) considerations for all options;
 - » Review sequence of work options and schedule impacts;
 - » Review permitting conditions and requirements for each alternative; and
 - » Create and evaluate impacts to the Baseline Schedule for each alternative. This will be an iterative process to ensure that all alternatives are accurately assessed, and that the final preferred alternative meets Contract schedule and milestone requirements.



FRONT/REAR O/R SUPT.



Role of VDOT and Other Agencies

Evaluation and mitigation of this risk is the responsibility of the Design/Builder, and we are fully prepared to take ownership. VDOT plays an important role by participating in and evaluating the various alternatives under consideration, and ultimately approving the final design. We anticipate multiple working group meetings to discuss issues, concerns and options, and look to partner with VDOT for over-the-shoulder reviews. We also would request VDOT's assistance with our efforts to coordinate with the Southbound Project, including sharing of information and integration of both Project's schedules and design. As permitting will be significant factor in the schedule and selection of the preferred alternative, we plan to reach out to the permitting agencies very early in the design phase to understand existing commitments and permitting requirements. This coordination will continue throughout the Project.

Critical Risk #3 - Maintaining Traffic Mobility & Safety Why The Risk Is Critical

The careful planning and implementation of maintenance of traffic mobility and safety is important on all projects, yet becomes especially critical when working on a corridor with adjacent and overlapping projects underway. This importance is magnified as I-95 is a crucial north-south artery for commuters, commerce, and tourists traveling regionally between the Richmond-Fredericksburg-Washington areas as well as for long-distance travelers along the eastern seaboard. It will be critical that this program ensures the preservation of traffic mobility for rush hour commuters, commercial vehicles, and tourist traffic, as well as ensuring safety is held paramount for the public and construction personnel. The project elements identified as the basis of this critical risk include:

- Overlapping construction activities with the Southbound and Fred-Ex Projects;
- Maintenance of all existing lanes, ramps, and a shoulder for vehicle refuge during construction;
- The combination of high traffic volumes (72,000 vehicles/day) and high travel speeds (existing posted speed of 65 mph);
- Implementation of "typical" lane closure hours that result in significant interstate delay as well as safety degradation; and
- Construction access for trucks entering/exiting I-95 at lower speeds than highway traffic.

Impact On The Project

The impact of improperly or inadequately maintaining traffic in a safe manner throughout the duration of the Project, or inadequately communicating construction activities with the traveling public, could have substantial consequences including:

- Degradation of safety for the public, VDOT, and/or construction personnel;
- Additional travel delays;
- Potential schedule and project completion delays;
- Loss of capacity and/or emergency responder access;
- Conflicting MOT devices causing driver confusion; and
- Driver frustration and loss of public support.

Mitigation Strategies

Our Team is adamant about maintaining the highest possible levels of traffic mobility and safety within our work zones. We are committed to making mobility and safety our top priorities, and exceeding the standard project requirements by implementing the mitigation strategies listed below.

1. Coordinating Concurrent Projects: In order to ensure the design and construction activities for concurrent projects are fully coordinated, our DBPM will serve as the design and construction liaison. He has the responsibility of working directly with VDOT, the design-build teams, and all applicable third parties to ensure safety, mobility, construction sequencing, and design features are fully coordinated. This commitment ensures drivers are



presented with a seamless "one project" look while traveling the corridor, and any "rework" of an adjacent project by others is minimized or avoided.

- 2. Assembling An Industry Leading MOT Team: All of our TTC, TMP and traffic analysis processes will be supervised by our Lead Temporary Traffic Control Manager who is also a VDOT-certified TTC Training Instructor. He has led the implementation of an in-house training program for our engineers, allowing all of our engineers involved in MOT design to achieve VDOT Advance Work Zone Traffic Control certification. Most importantly we have recent MOT design and construction experience on interstate projects, allowing us to understand all of the unique considerations and challenges for this Project.
- 3. Staging work to Minimize impacts and Ensure Construction Efficiency: To accomplish this, our Team has already formulated solutions for the following:
 - *Existing shoulder strength:* In the first phase of construction, we anticipate the need to temporarily shift traffic partially on the existing shoulders. To do so, analysis of the existing shoulder pavement will be performed, and the shoulder strengthened as an initial activity to accommodate traffic loading (if necessary). Our experienced Team has recently completed this exact type of work on I-95, I-64, and I-66. Required strengthening can be completed during night operations, where the shoulder is milled and stone removed to a specified depth, and immediately replaced with a thicker asphalt section during the same night. Completing this analysis and strengthening from the outset avoids the risk of the shoulder failing during construction, which could cause motorist and schedule delays, and safety concerns.
 - *Maintaining Ramp Movements:* While constructing connections in the vicinity of the existing interchanges, it will be critical to complete a multi-phased approach to maintain ramps "crossing over" this work area. Construction will be carefully planned to utilize temporary ramp geometry so that ramp movements can be relocated to allow for construction while also maintaining continuous access.
- 4. Mitigating Speed Differentials: To reduce the risk of construction vehicles entering and exiting the I-95 thru lanes, we plan on utilizing the

following strategies:

- Consolidating entrance/exit points to locations with greatest sight distances;
- Providing full acceleration/deceleration lengths for trucks meeting AASHTO requirements minimizing slow truck interaction with fastlane traffic; and
- Utilizing existing ramps for truck access to minimize their interaction with high speed thru traffic.
- 5. Focusing on site-specific enhanced safety and mobility strategies: These efforts begin by studying the preconstruction safety concerns and crash statistics, and then making interim safety enhancements as part of the first stage of our MOT plans in order to deliver immediate improvements to the traveling public. As shown in Figure 6, a preliminary investigation already completed by our Team has found that there were 505 crashes (and 2 fatality crashes) within the project limits along northbound I-95 within the past six years. Given this high number of crashes, including many rear-



Figure 6 -Crash Locations Within The Past Six Years On I-95.



end, sideswipe, and run-off-road crashes, we have identified the following enhancements that maximizes safety and operations:

- Temporary raised pavement markers and wider than minimum temporary lane markings for increased visibility;
- Design of lane shift geometry to the full "L" length for the posted speed limit (double the minimum length) as avoidance of abrupt transitions is especially important on interstates;
- Use of Portable Changeable Message Signs (PCMS) and overhead DMS; and
- Signs to alert motorists of slow or stopped traffic and new traffic patterns.
- **6.** *Public Outreach program:* From our successful design-build experience, we know that this objective is best accomplished utilizing a team approach with VDOT. This is important given the high travel speeds, high traffic volumes, and the adjacent interchanges. We already identified the potential public outreach solutions below:
 - Pardon-our Dust Meetings Holding regular "pardon-our-dust" and public information meetings throughout design and construction, especially prior to implementing major traffic pattern switches;
 - Project Website Coordination with VDOT to provide updates via a project website, including updates of construction progress and the posting of photos;
 - Public Outreach Our Team is dedicating a value-added Public Relations Manager to work in coordination with the VDOT Fredericksburg District public outreach staff to develop a comprehensive public outreach program that includes social media, radio, and television news coverage. This outreach will communicate major operations or traffic pattern changes, and permanent access route changes. For example, the Route 17 exit point will be shifted approximately 3-miles south of the existing exit location. The opening of the new ramp will require substantial outreach as motorists will reach their "decision point" much sooner than they currently do. This outreach can also include media blitzes, web postings, mailing, and PCMS signs to targeted audiences; and
 - *Emergency Responders* Direct communication with emergency responders prior to traffic switches, including in-person meetings with construction personnel to plan access routes, roles, and responsibilities in the event of an emergency in the work zone.

Role of VDOT and Other Agencies

It is expected that VDOT will be involved from a review and approval standpoint during the development of the plans. Analysis of traffic volumes and travel patterns as well as the proposed construction sequencing will be discussed with VDOT during the TMP and TTC development process to determine if the proposed configurations are acceptable. We anticipate that VDOT will remain involved in the public outreach process during design and construction (either in a support or lead role). We anticipate that VDOT will help integrate our work activities into VDOT's LCAMS, which applies to both the design and construction phases, we also anticipate MOT coordination during construction with other agencies, such as coordination with locality emergency responders.

Appendix

2.10 Acknowledgement of Receipt of RFQ, Revisions, and/or Addenda Form C-78-RFQ

Form C-78-RFQ

ATTACHMENT 2.10

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION

RFQ NO.	C00101510DB106
PROJECT NO .:	0095-111-270

ACKNOWLEDGEMENT OF RFQ, REVISION AND/OR ADDENDA

Acknowledgement shall be made of receipt of the Request for Qualifications (RFQ) and/or any and all revisions and/or addenda pertaining to the above designated project which are issued by the Department prior to the Statement of Qualifications (SOQ) submission date shown herein. Failure to include this acknowledgement in the SOQ may result in the rejection of your SOQ.

By signing this Attachment 2.10, the Offeror acknowledges receipt of the RFQ and/or following revisions and/or addenda to the RFQ for the above designated project which were issued under cover letter(s) of the date(s) shown hereon:

1. Cover letter of	RFQ – May 13, 2019	
	(Date)	
2. Cover letter of		
	(Date)	
3. Cover letter of		
	(Date)	
A Paa		
grall		July 2, 2019
SIGNATL	IRE	DATE
Garry A. Palleschi		Vice President
PRINTED	IAME	TITLE

3.1.2 SOQ Checklist

ATTACHMENT 3.1.2

Project: 0095-111-270 STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

Offerors shall furnish a copy of this Statement of Qualifications (SOQ) Checklist, with the page references added, with the Statement of Qualifications.

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 15- page limit?	SOQ Page Reference
Statement of Qualifications Checklist and Contents	Attachment 3.1.2	Section 3.1.2	ou	N/A
Acknowledgement of RFQ, Revision and/or Addenda	Attachment 2.10 (Form C-78-RFQ)	Section 2.10	ou	N/A
Letter of Submittal (on Offeror's letterhead)				
Authorized Representative's signature	AN	Section 3.2.1	yes	.
Offeror's point of contact information	AN	Section 3.2.2	yes	~
Principal officer information	AN	Section 3.2.3	yes	~
Offeror's Corporate Structure	AN	Section 3.2.4	yes	~
Identity of Lead Contractor and Lead Designer	ΝA	Section 3.2.5	yes	.
Affiliated/subsidiary companies	Attachment 3.2.6	Section 3.2.6	ou	N/A
Debarment forms	Attachment 3.2.7(a) Attachment 3.2.7(b)	Section 3.2.7	ou	A/N
Offeror's VDOT prequalification evidence	AN	Section 3.2.8	ou	N/A
Evidence of obtaining bonding	٧N	Section 3.2.9	ou	N/A

2	
-	
ŝ	
Z	
ш	
₹	
치	
A	
F	
F	
◄	

Project: 0095-111-270 STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 15- page limit?	SOQ Page Reference
SCC and DPOR registration documentation (Appendix)	Attachment 3.2.10	Section 3.2.10	ou	N/A
Full size copies of SCC Registration	NA	Section 3.2.10.1	ou	N/A
Full size copies of DPOR Registration (Offices)	NA	Section 3.2.10.2	ou	N/A
Full size copies of DPOR Registration (Key Personnel)	NA	Section 3.2.10.3	ou	N/A
Full size copies of DPOR Registration (Non-APELSCIDLA)	NA	Section 3.2.10.4	ou	N/A
DBE statement within Letter of Submittal confirming Offeror is committed to achieving the required DBE goal	NA	Section 3.2.11	yes	-
Offeror's Team Structure				2-7
Identity of and qualifications of Key Personnel	NA	Section 3.3.1	yes	2-6
Key Personnel Resume – DB Project Manager	Attachment 3.3.1	Section 3.3.1.1	ou	N/A
Key Personnel Resume – Entrusted Engineer In charge	Attachment 3.3.1	Section 3.3.1.2	ou	N/A
Key Personnel Resume – Quality Assurance Manager	Attachment 3.3.1	Section 3.3.1.3	ou	N/A
Key Personnel Resume – Design Manager	Attachment 3.3.1	Section 3.3.1.4	ou	N/A
Key Personnel Resume – Construction Manager	Attachment 3.3.1	Section 3.3.1.5	ou	N/A
Key Personnel Resume – Lead Structural Engineer	Attachment 3.3.1	Section 3.3.1.6	ou	N/A
Organizational chart	NA	Section 3.3.2	yes	7
Organizational chart narrative	NA	Section 3.3.2	yes	4-6

ATTACHMENT 3.1.2

Project: 0095-111-270 STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 15- page limit?	SOQ Page Reference
Experience of Offeror's Team				
Lead Contractor Work History Form	Attachment 3.4.1(a)	Section 3.4	ou	N/A
Lead Designer Work History Form	Attachment 3.4.1(b)	Section 3.4	ou	N/A
Project Risk				
Identify and discuss three critical risks for the Project	NA	Section 3.5.1	yes	8-15

3.2.6 List of Affiliated and Subsidiary Companies

ATTACHMENT 3.2.6

State Project No. 0095-111-270

Affiliated and Subsidiary Companies of the Offeror

Offerors shall complete the table and include the addresses of affiliates or subsidiary companies as applicable. By completing this table, Offerors certify that all affiliated and subsidiary companies of the Offeror are listed.

The Offeror does not have any affiliated or subsidiary companies.

Relationship with Offeror (Affiliate or Subsidiary)	Full Legal Name	Address
Subsidiary	Shirley Design/Build, LLC	8435 Backlick Road, Lorton, Virginia 22079
Affiliate	Clark Construction Group, LLC	7500 Old Georgetown Road, Bethesda, MD 20814
Affiliate	Metro Earthworks	8435 Backlick Road, Lorton, Virginia 22079
Subsidiary	Route 28 Corridor Improvements, LLC	8435 Backlick Road, Lorton, Virginia 22079
Affiliate	Capital Rail Constructors, a JV	7500 Old Georgetown Road, Bethesda, MD 20814
Affiliate	Shirley Underground	8435 Backlick Road, Lorton, Virginia 22079

3.2.7 Debarment Forms

<u>CERTIFICATION REGARDING DEBARMENT</u> <u>PRIMARY COVERED TRANSACTIONS</u>

Project No.: 0095-111-270

1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency.

b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; and have not been convicted of any violations of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification, or destruction of records, making false statements, or receiving stolen property;

c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 1) b) of this certification; and

d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

Signature

July 2, 2019 Date

Shirley Contracting Company, LLC Name of Firm

<u>CERTIFICATION REGARDING DEBARMENT</u> <u>LOWER TIER COVERED TRANSACTIONS</u>

Project No.: 0095-111-270

1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

Signature

Mey <u>6/3/19</u> Executive Vice President Date Title

incers Inc. Name of

<u>CERTIFICATION REGARDING DEBARMENT</u> LOWER TIER COVERED TRANSACTIONS

Project No.: 0095-111-270

1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

Jums Viinste President 6/10/19 nature Date Title

Quinn Consulting Services, Inc. Name of Firm

CERTIFICATION REGARDING DEBARMENT LOWER TIER COVERED TRANSACTIONS

Project No.: 0095-111-270

1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

Signature

May 31, 2019 Date Vice President Title

DMY Engineering Consultants Inc. Name of Firm

<u>CERTIFICATION REGARDING DEBARMENT</u> LOWER TIER COVERED TRANSACTIONS

Project No.: 0095-111-270

1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

Signature

June 11, 2019 Date

<u>VP of Business Development</u> Title

Specialized Engineering Name of Firm
<u>CERTIFICATION REGARDING DEBARMENT</u> LOWER TIER COVERED TRANSACTIONS

Project No.: 0095-111-270

1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

N. R. M. Keaque Signature

May 30, 2019 Date Vice President Title

Quantum Spatial, Inc. Name of Firm

<u>CERTIFICATION REGARDING DEBARMENT</u> <u>LOWER TIER COVERED TRANSACTIONS</u>

Project No.: 0095-111-270

1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

e 6/7/19 SR. V.P. Signature

ing And MAPPING, LLC

CERTIFICATION REGARDING DEBARMENT LOWER TIER COVERED TRANSACTIONS

Project No.: 0095-111-270

1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

President, CEO, COO 6/3/19 Title Date ignature

SKELLY and LOY, Inc. Name of Firm

<u>CERTIFICATION REGARDING DEBARMENT</u> <u>LOWER TIER COVERED TRANSACTIONS</u>

Project No.: 0095-111-270

1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

President 6/24/2019 Title Date Signature

Diversified Property Services, Inc.

Name of Firm

CERTIFICATION REGARDING DEBARMENT LOWER TIER COVERED TRANSACTIONS

Project No.: 0095-111-270

The prospective lower tier participant certifies, by submission of this proposal, that neither it 1) nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

Where the prospective lower tier participant is unable to certify to any of the statements in this 2) certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

Signature

6-2-1-19 Vice Prisident Date Title

OID Dominion Settlements, Inc. T/A Key Title Name of Firm

3.2.8 VDOT Prequalification Certificate



of TransportationDate Printed:06/21/2019Department's List of Prequalified Vendors12:00 AMIncludes All Qualified Levels As Of 6/21/2019Page357- S -- S -- S -

Vendor ID:S1060Vendor Name:SHEPAUL ENTERPRISES, INC.Prequal Level:Prequalified (Currently Inactive)Prequal Exp:09/30/2019

-- PREQ Address --

P. O. BOX 1638 BECKLEY, WV 25802-1638 Phone: (304)877-6451 Fax: (304)877-5789 020 - FENCE INSTALLATION 021 - GUARDRAIL INSTALLATION 023 - REINFORCING STEEL PLACEMENT

Work Classes (Listed But Not Limited To)

Bus. Contact:HAPUARACHY, SHANNON PAULEmail:SHAPUARACHY@GMAIL.COM

-- DBE Information --

DBE Type: DMBE DBE Contact: N/A

Vendor ID: S018 Vendor Name: SHIRLEY CONTRACTING COMPANY, LLC Prequal Level: Prequalified Prequal Exp: 09/30/2019

-- PREQ Address --

8435 BACKLICK RD. LORTON, VA 22079-1403 Phone: (703)550-8100 Fax: (703)550-7897 Work Classes (Listed But Not Limited To)

002 - GRADING

003 - MAJOR STRUCTURES 007 - MINOR STRUCTURES

045 - UNDERGROUND UTILITIES

Bus. Contact: CLYMORE, DANIEL EDWARD Email: DCLYMORE@SHIRLEYCONTRACTING.COM

--- DBE Information ---

DBE Type: N/A DBE Contact: N/A

3.2.9 Surety Letter



One Tower Square Hartford, CT 06183

June 28, 2019

Mr. Suril R. Shah, P.E., DBIA Alternative Project Delivery Division Virginia Department of Transportation 1401 East Broad Street Richmond, VA 23219

Re: Request for Qualifications - A Design-Build Project - Contract ID Number: C00105510DB106 I-95 Northbound Rappahannock River Crossing From: 1.16 miles South of Rte. 3 (Plank Road) To: 0.44 Miles South of Rte. 8900 (Centreport Parkway) Spotsylvania County, City of Fredericksburg, Stafford County, Virginia Estimated Contract Value: \$126.5 million

Dear Mr. Shah:

Travelers Casualty and Surety Company of America (A.M. Best Financial Strength Rating A++, Financial Size Category XV) and their co-surety partners, have the privilege of providing surety bonds for Shirley Contracting Company, LLC. The available bonding capacity on individual projects is in excess of \$750,000,000.

In our opinion, Shirley is one of the finest, best managed construction firms in the country. Shirley has handled each of its projects in a professional manner and completed all satisfactorily.

As surety for Shirley Contracting Company, LLC, Travelers Casualty and Surety Company of America, is capable of obtaining 100% Performance Bond and 100% Labor and Materials Payment Bond in the amount of the anticipated cost of construction, and said bonds will cover the project and any warranty periods as provided for in the Contract Documents on behalf of the Contractor, in the event that such firm be the successful bidder and enter into a contract for this project, subject to acceptable review of the contract documents and bond forms, financing, availability of reinsurance, and Shirley Contracting Company, LLC continuing to satisfy other underwriting considerations at the time the bonds are requested.

This letter is not an assumption of liability and is issued only as a reference request from our client.

Sincerely,

Travelers Casualty and Surety Company of America A.M. Best Rating A++ XV

By:

Karen C. Bowling, Attorney-in-Fact



Travelers Casualty and Surety Company of America **Travelers Casualty and Surety Company** St. Paul Fire and Marine Insurance Company

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company are corporations duly organized under the laws of the State of Connecticut (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint Karen C Bowling of COLUMBIA

, their true and lawful Attorney-in-Fact to sign, execute, seal and acknowledge any and all bonds, recognizances, Maryland conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed, and their corporate seals to be hereto affixed, this 3rd day of February, 2017.



State of Connecticut

City of Hartford ss.

Robert L. Raney, Senfor Vice President

On this the 3rd day of February, 2017, before me personally appeared Robert L. Raney, who acknowledged himself to be the Senior Vice President of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal.

My Commission expires the 30th day of June, 2021



marie c Intreault

Marie C. Tetreault, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, which resolutions are now in full force and effect, reading as follows:

RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

FURTHER RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

FURTHER RESOLVED, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

FURTHER RESOLVED, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, Kevin E. Hughes, the undersigned, Assistant Secretary of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which remains in full force and effect.

28K UNE Dated this day of

Kar E. Hughen_ Kevin E. Hughes, Assistant Secretary

To verify the authenticity of this Power of Attorney, please call us at 1-800-421-3880. Please refer to the above-named Attorney-in-Fact and the details of the bond to which the power is attached.

3.2.10 SCC and DPOR Information Tables, Licenses and Registrations

ATTACHMENT 3.2.10

State Project No.:0095-111-270

SCC & DPOR INFORMATION TABLE

Offerors shall complete the table and include the required state registration and licensure information. By completing this table, Offerors certify that their team complies with the requirements set forth in Section 3.2.10 and that all businesses listed are active and in good standing.

	SCC	& DPOR INFOR	MATION F	OR BUSINESSES (RFP Sections	3.2.10.1 and 3.2.10.2		
	SCC In	formation (3.2.1	0.1)	DP(DR Information (3.2.	10.2)	
Business Name	SCC Number	SCC Type of Corporation	SCC Status	DPOR Registered Address	DPOR Registration Type	DPOR Registration Number	DPOR Expiration Date
Shirley Contracting Company, LLC	S082038-3	Limited Liability Co.	Active	8435 Backlick Road Lorton, VA 22079	Class A Contractor	2705071652	October 31, 2020
Dewberry Engineers Inc.	F100462-3	Corporation	Active	8401 Arlington Boulevard Fairfax, VA 22031	Business Entity Branch Office	0411000941	February 29, 2020
Quinn Consulting Services, Inc.	0492551-7	Corporation	Active	14160 Newbrook Drive Suite 220 Chantilly, VA 20151	Business Entity	0407003733	December 31, 2019
DMY Engineering Consultants, Inc.	0768895-5	Corporation	Active	45662 Terminal Drive, Suite 110 Dulles, VA 20166	Business Entity	0407005631	December 31, 2019
DIW Group, Inc. DBA Specialized Engineering, Inc.	F128190-8	Corporation	Active	4845 International Blvd. #104 Frederick, MD 21703	Business Entity	0407004748	December 31, 2019
Quantum Spatial, Inc.	F113594-8	Corporation	Active	6216 Resources Drive Sheboygan Falls, WI 53085	Business Entity	0407005489	December 31, 2019
Surveying & Mapping, LLC	T056496-5	Limited Liability Co.	Active	8397 Euclid Avenue Manassas Park, VA 20111	Business Entity	0407006626	December 31, 2019
Skelly and Loy, Inc.	F113636-7	Corporation	Active	449 Eisenhower Blvd. Suite 300 Harrisburg, PA 17112	Business Entity	0407001402	December 31, 2019
Diversified Property Services of Virginia, Inc.	F130410-6	Corporation	Active	20 E. Timonium Road Suite 111 Timonium, MD 21093	Appraisal Business	4008001190	November 30, 2020
Old Dominion Settlements, Inc. T/A Key Title	0243891-9	Corporation	Active	n/a			

ATTACHMENT 3.2.10

State Project No.:0095-111-270

SCC & DPOR INFORMATION TABLE

	DPOR INFORM	IATION FOR INDIVIDUA	LS (RFQ Sections 3.2.10.3 a	nd 3.2.10.4)		
Business Name	Individual's Name	Office Location Where Professional Services will be Provided (City/State)	Individual's DPOR Address	DPOR Type	DPOR Registration Number	DPOR Expiration Date
Dewberry Engineers Inc.	Jeremy Beck	Fairfax, VA	5862 White Dove Circle Clifton, VA 20124	Professional Engineer	0402043254	July 31, 2021
Quinn Consulting Services, Inc.	Steven Scott Shropshire	Chantilly, VA	5203 Yellow Birch Drive Fredericksburg, VA 22407	Professional Engineer	0402035812	June 30, 2021
Shirley Contracting Company, LLC	Robert Coffee	Lorton, VA	8501 Golden Ridge Court Lorton, VA 22079	Professional Engineer	0402023283	June 30, 2020
Dewberry Engineers Inc.	James Ross Burhouse	Fairfax, VA	10926 Ted Barclay Lane, Bristow, VA 20136	Professional Engineer	0402037078	December 31, 2020





















License Details

SHIRLEY CONTRACTING COMPANY LLC Name License Number 2705071652 License Description Contractor Firm Type LLC - Limited Liability Company Rank¹ Class A Address 8435 BACKLICK ROAD, LORTON, VA 22079 Specialties² Highway / Heavy (H/H) **Initial Certification Date** 2002-10-08 **Expiration Date** 2020-10-31

- 1 Refer to the Statutory Definitions (http://law.lis.virginia.gov/vacode/title54.1/chapter11/section54.1-1100/) for descriptions of the rank or class of license (A, B, or C) that determines the monetary limits on contracts/projects.
- Refer to the Classification Definitions (http://lis.virginia.gov/cgi-bin/legp604.exe?000+reg+18VAC50-22 20) and Specialty Definitions (http://lis.virginia.gov/cgi-bin/legp604.exe?000+reg+18VAC50-22-30) for detailed definitions of these classifications and specialties.

The data located on this website are not the public records of the Department of Professional and Occupational Regulation (DPOR). All public records are physically located at DPOR's Public Records Section: 9960 Mayland Drive, Suite 400, Richmond, VA 23233. While DPOR works to ensure the accuracy of the data provided online, the data available on these pages are updated routinely but may not be up to date at all times (due to document processing delays, technical maintenance, etc.).

DPOR assumes no liability for any errors, omissions, or inaccuracies in the information provided or for any reliance on data provided online. While DPOR has attempted to ensure that the data contained herein are accurate and reflect the status of its regulants, DPOR makes no warranties, expressed or implied, concerning the accuracy, completeness, reliability, or suitability of this data. If discrepancies or errors are discovered, please inform DPOR so that appropriate action may be taken.

DPOR License Lookup build 1,198 (built 2017-07-13 02:34:41).

License Details

Name	DEWBERRY ENGINEERS INC
License Number	0411000941
License Description	Business Entity Branch Office Registration
Business Type	Corporation
Rank	Business Entity Branch Office
Address	8401 ARLINGTON BLVD, FAIRFAX, VA 22031
Initial Certification Date	2012-07-02
Expiration Date	2020-02-29

Related Licenses¹

License Number	License Holder Name	License Type	Relation Type	License Expiry
0403003333	ECHEVARRIA, JESUS HIRAM	Land Surveyor License	Land Surveying	2020-11-30
0406001718	CENA, JANICE MARIE	Landscape Architect License	Landscape Architecture	2021-01-31
0402023693	JAMES, RUSSELL R	Professional Engineer License	Engineering	2021-03-31

Showing 1 to 3 of 3 entries

1 The data located on this website are not the public records of the Department of Professional and Occupational Regulation (DPOR). All public records are physically located at DPOR's Public Records Section: 9960 Mayland Drive, Suite 400, Richmond, VA 23233. While DPOR works to ensure the accuracy of the data provided online, the data available on these pages are updated routinely but may not be up to date at all times (due to document processing delays, technical maintenance, etc.).

DPOR assumes no liability for any errors, omissions, or inaccuracies in the information provided or for any reliance on data provided online. While DPOR has attempted to ensure that the data contained herein are accurate and reflect the status of its regulants, DPOR makes no warranties, expressed or implied, concerning the accuracy, completeness, reliability, or suitability of this data. If discrepancies or errors are discovered, please inform the Broker and DPOR so that appropriate action may be taken.

The data located on this website are not the public records of the Department of Professional and Occupational Regulation (DPOR). All public records are physically located at DPOR's Public Records Section: 9960 Mayland Drive, Suite 400, Richmond, VA 23233. While DPOR works to ensure the accuracy of the data provided online, the data available on these pages are updated routinely but may not be up to date at all times (due to document processing delays, technical maintenance, etc.).

DPOR assumes no liability for any errors, omissions, or inaccuracies in the information provided or for any reliance on data provided online. While DPOR has attempted to ensure that the data contained herein are accurate and reflect the status of its regulants, DPOR makes no warranties, expressed or implied, concerning the accuracy, completeness, reliability, or suitability of this data. If discrepancies or errors are discovered, please inform DPOR so that appropriate action may be taken.

DPOR License Lookup build 1,198 (built 2017-07-13 02:34:41).

License Details

QUINN CONSULTING SERVICES INCORPORATED
0407003733
Business Entity Registration
Corporation
Business Entity
14160 NEWBROOK DR STE 220, CHANTILLY, VA
20151
1998-03-05
2019-12-31

Related Licenses¹

License	License Holder	License Type	Relation	License
Number	Name		Type	Expiry
0402026380	VICINSKI, JOHN KEVIN	Professional Engineer License	Engineering	2019-08-31

Showing 1 to 1 of 1 entries

1 The data located on this website are not the public records of the Department of Professional and Occupational Regulation (DPOR). All public records are physically located at DPOR's Public Records Section: 9960 Mayland Drive, Suite 400, Richmond, VA 23233. While DPOR works to ensure the accuracy of the data provided online, the data available on these pages are updated routinely but may not be up to date at all times (due to document processing delays, technical maintenance, etc.).

DPOR assumes no liability for any errors, omissions, or inaccuracies in the information provided or for any reliance on data provided online. While DPOR has attempted to ensure that the data contained herein are accurate and reflect the status of its regulants, DPOR makes no warranties, expressed or implied, concerning the accuracy, completeness, reliability, or suitability of this data. If discrepancies or errors are discovered, please inform the Broker and DPOR so that appropriate action may be taken.

The data located on this website are not the public records of the Department of Professional and Occupational Regulation (DPOR). All public records are physically located at DPOR's Public Records Section: 9960 Mayland Drive, Suite 400, Richmond, VA 23233. While DPOR works to ensure the accuracy of the data provided online, the data available on these pages are updated routinely but may not be up to date at all times (due to document processing delays, technical maintenance, etc.).

DPOR assumes no liability for any errors, omissions, or inaccuracies in the information provided or for any reliance on data provided online. While DPOR has attempted to ensure that the data contained herein are accurate and reflect the status of its regulants, DPOR makes no warranties, expressed or implied, concerning the accuracy, completeness, reliability, or suitability of this data. If discrepancies or errors are discovered, please inform DPOR so that appropriate action may be taken.

License Details

Name	DMY ENGINEERING CONSULTANTS INC
License Number	0407005631
License Description	Business Entity Registration
Firm Type	Corporation
Rank	Business Entity
Address	45662 TERMINAL DRIVE SUITE 110, DULLES, VA
	20166
Initial Certification Date	2010-03-10
Expiration Date	2019-12-31

Related Licenses¹

License	License Holder	License Type	Relation	License
Number	Name		Type	Expiry
0402041123	MA, WEIYI	Professional Engineer License	Engineering	2021-06-30

Showing 1 to 1 of 1 entries

1 The data located on this website are not the public records of the Department of Professional and Occupational Regulation (DPOR). All public records are physically located at DPOR's Public Records Section: 9960 Mayland Drive, Suite 400, Richmond, VA 23233. While DPOR works to ensure the accuracy of the data provided online, the data available on these pages are updated routinely but may not be up to date at all times (due to document processing delays, technical maintenance, etc.).

DPOR assumes no liability for any errors, omissions, or inaccuracies in the information provided or for any reliance on data provided online. While DPOR has attempted to ensure that the data contained herein are accurate and reflect the status of its regulants, DPOR makes no warranties, expressed or implied, concerning the accuracy, completeness, reliability, or suitability of this data. If discrepancies or errors are discovered, please inform the Broker and DPOR so that appropriate action may be taken.

The data located on this website are not the public records of the Department of Professional and Occupational Regulation (DPOR). All public records are physically located at DPOR's Public Records Section: 9960 Mayland Drive, Suite 400, Richmond, VA 23233. While DPOR works to ensure the accuracy of the data provided online, the data available on these pages are updated routinely but may not be up to date at all times (due to document processing delays, technical maintenance, etc.).

DPOR assumes no liability for any errors, omissions, or inaccuracies in the information provided or for any reliance on data provided online. While DPOR has attempted to ensure that the data contained herein are accurate and reflect the status of its regulants, DPOR makes no warranties, expressed or implied, concerning the accuracy, completeness, reliability, or suitability of this data. If discrepancies or errors are discovered, please inform DPOR so that appropriate action may be taken.

License Details

Name	DIW GROUP INC
DBA Name	SPECIALIZED ENGINEERING
License Number	0407004748
License Description	Business Entity Registration
Firm Type	Corporation
Rank	Business Entity
Address	4845 INTERNATIONAL BLVD #104, FREDERICK, MD
	21703
Initial Certification Date	2005-11-01
Expiration Date	2019-12-31

Related Licenses¹

License Number	License Holder Name	License Type	Relation Type	License Expiry
0402020050	MITCHELL, CHARLES ROBERT	Professional Engineer License	Engineering	2019-07-31

Showing 1 to 1 of 1 entries

1 The data located on this website are not the public records of the Department of Professional and Occupational Regulation (DPOR). All public records are physically located at DPOR's Public Records Section: 9960 Mayland Drive, Suite 400, Richmond, VA 23233. While DPOR works to ensure the accuracy of the data provided online, the data available on these pages are updated routinely but may not be up to date at all times (due to document processing delays, technical maintenance, etc.).

DPOR assumes no liability for any errors, omissions, or inaccuracies in the information provided or for any reliance on data provided online. While DPOR has attempted to ensure that the data contained herein are accurate and reflect the status of its regulants, DPOR makes no warranties, expressed or implied, concerning the accuracy, completeness, reliability, or suitability of this data. If discrepancies or errors are discovered, please inform the Broker and DPOR so that appropriate action may be taken.

The data located on this website are not the public records of the Department of Professional and Occupational Regulation (DPOR). All public records are physically located at DPOR's Public Records Section: 9960 Mayland Drive, Suite 400, Richmond, VA 23233. While DPOR works to ensure the accuracy of the data provided online, the data available on these pages are updated routinely but may not be up to date at all times (due to document processing delays, technical maintenance, etc.).

DPOR assumes no liability for any errors, omissions, or inaccuracies in the information provided or for any reliance on data provided online. While DPOR has attempted to ensure that the data contained herein are accurate and reflect the status of its regulants, DPOR makes no warranties, expressed or implied, concerning the accuracy, completeness, reliability, or suitability of this data. If discrepancies or errors are discovered, please inform DPOR so that appropriate action may be taken.

DPOR License Lookup build 1,198 (built 2017-07-13 02:34:41).

License Details

Name	QUANTUM SPATIAL INC
License Number	0407005489
License Description	Business Entity Registration
Rank	Business Entity
Address	6216 RESOURCES DR, SHEBOYGAN FALLS, WI
	53085
Initial Certification Date	2009-07-30
Expiration Date	2019-12-31

Related Licenses¹

License	License Holder	License Type	Relation	License
Number	Name		Type	Expiry
0408000008	MCKEAGUE, WILLIAM J	Surveyor Photogrammetrist License	Land Surveying	2021-02-28

Showing 1 to 1 of 1 entries

1 The data located on this website are not the public records of the Department of Professional and Occupational Regulation (DPOR). All public records are physically located at DPOR's Public Records Section: 9960 Mayland Drive, Suite 400, Richmond, VA 23233. While DPOR works to ensure the accuracy of the data provided online, the data available on these pages are updated routinely but may not be up to date at all times (due to document processing delays, technical maintenance, etc.).

DPOR assumes no liability for any errors, omissions, or inaccuracies in the information provided or for any reliance on data provided online. While DPOR has attempted to ensure that the data contained herein are accurate and reflect the status of its regulants, DPOR makes no warranties, expressed or implied, concerning the accuracy, completeness, reliability, or suitability of this data. If discrepancies or errors are discovered, please inform the Broker and DPOR so that appropriate action may be taken.

The data located on this website are not the public records of the Department of Professional and Occupational Regulation (DPOR). All public records are physically located at DPOR's Public Records Section: 9960 Mayland Drive, Suite 400, Richmond, VA 23233. While DPOR works to ensure the accuracy of the data provided online, the data available on these pages are updated routinely but may not be up to date at all times (due to document processing delays, technical maintenance, etc.).

DPOR assumes no liability for any errors, omissions, or inaccuracies in the information provided or for any reliance on data provided online. While DPOR has attempted to ensure that the data contained herein are accurate and reflect the status of its regulants, DPOR makes no warranties, expressed or implied, concerning the accuracy, completeness, reliability, or suitability of this data. If discrepancies or errors are discovered, please inform DPOR so that appropriate action may be taken.

License Details

Name	SURVEYING AND MAPPING LLC
License Number	0407006626
License Description	Business Entity Registration
Firm Type	LLC - Limited Liability Company
Rank	Business Entity
Address	8397 EUCLID AVE, MANASSAS PARK, VA 20111
Initial Certification Date	2014-10-15
Expiration Date	2019-12-31

Related Licenses¹

License Number	License Holder Name	License Type	Relation Type	License Expiry
0403003249	LUX, ROBERT WILLIAM	Land Surveyor License	Land Surveying	2020-06-30
0403001937	SPENCER, MELVIN E	Land Surveyor License	Land Surveying	2021-01-31
0403001764	SHACKELFORD, MICHAEL GARY	Land Surveyor License	Land Surveying	2020-06-30
0402022310	SKAHN, CARY ALAN	Professional Engineer License	Engineering	2021-06-30

Showing 1 to 4 of 4 entries

1 The data located on this website are not the public records of the Department of Professional and Occupational Regulation (DPOR). All public records are physically located at DPOR's Public Records Section: 9960 Mayland Drive, Suite 400, Richmond, VA 23233. While DPOR works to ensure the accuracy of the data provided online, the data available on these pages are updated routinely but may not be up to date at all times (due to document processing delays, technical maintenance, etc.).

DPOR assumes no liability for any errors, omissions, or inaccuracies in the information provided or for any reliance on data provided online. While DPOR has attempted to ensure that the data contained herein are accurate and reflect the status of its regulants, DPOR makes no warranties, expressed or implied, concerning the accuracy, completeness, reliability, or suitability of this data. If discrepancies or errors are discovered, please inform the Broker and DPOR so that appropriate action may be taken.

The data located on this website are not the public records of the Department of Professional and Occupational Regulation (DPOR). All public records are physically located at DPOR's Public Records Section: 9960 Mayland Drive, Suite 400, Richmond, VA 23233. While DPOR works to ensure the accuracy of the data provided online, the data available on these pages are updated routinely but may not be up to date at all times (due to document processing delays, technical maintenance, etc.).

DPOR assumes no liability for any errors, omissions, or inaccuracies in the information provided or for any reliance on data provided online. While DPOR has attempted to ensure that the data contained herein are accurate and reflect the status of its regulants, DPOR makes no warranties, expressed or implied, concerning the accuracy, completeness, reliability, or suitability of this data. If discrepancies or errors are discovered, please inform DPOR so that appropriate action may be taken.

DPOR License Lookup build 1,198 (built 2017-07-13 02:34:41).

License Details

Name	SKELLY & LOY INC
License Number	0407001402
License Description	Business Entity Registration
Rank	Business Entity
Address	449 EISENHOWER BLVD SUITE 300, HARRISBURG,
	PA 17112
Initial Certification Date	1982-08-31
Expiration Date	2019-12-31

Related Licenses¹

License	License Holder	License Type	Relation	License
Number	Name		Type	Expiry
0402018049	MORSE, STEPHEN RICHARD	Professional Engineer License	Engineering	2020-04-30

Showing 1 to 1 of 1 entries

1 The data located on this website are not the public records of the Department of Professional and Occupational Regulation (DPOR). All public records are physically located at DPOR's Public Records Section: 9960 Mayland Drive, Suite 400, Richmond, VA 23233. While DPOR works to ensure the accuracy of the data provided online, the data available on these pages are updated routinely but may not be up to date at all times (due to document processing delays, technical maintenance, etc.).

DPOR assumes no liability for any errors, omissions, or inaccuracies in the information provided or for any reliance on data provided online. While DPOR has attempted to ensure that the data contained herein are accurate and reflect the status of its regulants, DPOR makes no warranties, expressed or implied, concerning the accuracy, completeness, reliability, or suitability of this data. If discrepancies or errors are discovered, please inform the Broker and DPOR so that appropriate action may be taken.

The data located on this website are not the public records of the Department of Professional and Occupational Regulation (DPOR). All public records are physically located at DPOR's Public Records Section: 9960 Mayland Drive, Suite 400, Richmond, VA 23233. While DPOR works to ensure the accuracy of the data provided online, the data available on these pages are updated routinely but may not be up to date at all times (due to document processing delays, technical maintenance, etc.).

DPOR assumes no liability for any errors, omissions, or inaccuracies in the information provided or for any reliance on data provided online. While DPOR has attempted to ensure that the data contained herein are accurate and reflect the status of its regulants, DPOR makes no warranties, expressed or implied, concerning the accuracy, completeness, reliability, or suitability of this data. If discrepancies or errors are discovered, please inform DPOR so that appropriate action may be taken.

License Details		
Name	DIVERSIFIED PROPERTY SERVICES OF VIRGINIA	
License Number	4008001190	
License Description	Appraisal Business Registration	
Firm Type	Corporation	
Rank	Business Entity	
Address	20 E TIMONIUM ROAD SUITE 111, TIMONIUM, MD	
	21093-0000	
Initial Certification Date	2000-11-29	
Expiration Date	2020-11-30	

The data located on this website are not the public records of the Department of Professional and Occupational Regulation (DPOR). All public records are physically located at DPOR's Public Records Section: 9960 Mayland Drive, Suite 400, Richmond, VA 23233. While DPOR works to ensure the accuracy of the data provided online, the data available on these pages are updated routinely but may not be up to date at all times (due to document processing delays, technical maintenance, etc.).

DPOR assumes no liability for any errors, omissions, or inaccuracies in the information provided or for any reliance on data provided online. While DPOR has attempted to ensure that the data contained herein are accurate and reflect the status of its regulants, DPOR makes no warranties, expressed or implied, concerning the accuracy, completeness, reliability, or suitability of this data. If discrepancies or errors are discovered, please inform DPOR so that appropriate action may be taken.

DPOR License Lookup build 1,198 (built 2017-07-13 02:34:41).

License Details

Name License Number License Description Rank Address Initial Certification Date Expiration Date BECK, JEREMY JAMES 0402043254 Professional Engineer License Professional Engineer CLIFTON, VA 20124 2009-07-13 2021-07-31

The data located on this website are not the public records of the Department of Professional and Occupational Regulation (DPOR). All public records are physically located at DPOR's Public Records Section: 9960 Mayland Drive, Suite 400, Richmond, VA 23233. While DPOR works to ensure the accuracy of the data provided online, the data available on these pages are updated routinely but may not be up to date at all times (due to document processing delays, technical maintenance, etc.).

DPOR assumes no liability for any errors, omissions, or inaccuracies in the information provided or for any reliance on data provided online. While DPOR has attempted to ensure that the data contained herein are accurate and reflect the status of its regulants, DPOR makes no warranties, expressed or implied, concerning the accuracy, completeness, reliability, or suitability of this data. If discrepancies or errors are discovered, please inform DPOR so that appropriate action may be taken.

DPOR License Lookup build 1,198 (built 2017-07-13 02:34:41).
DPOR License Lookup License Number 0402035812

License Details

Name	SHROPSHIRE, STEVEN SCOTT
License Number	0402035812
License Description	Professional Engineer License
Rank	Professional Engineer
Address	FREDERICKSBURG, VA 22407
Initial Certification Date	2005-06-10
Expiration Date	2021-06-30

Related Licenses¹

License	License Holder	License Type	Relation	License
Number	Name		Type	Expiry
0410000156	RINKER DESIGN ASSOCIATES PC	Professional Corporation Branch Office Registration	Engineering	2020-02-29

Showing 1 to 1 of 1 entries

1 The data located on this website are not the public records of the Department of Professional and Occupational Regulation (DPOR). All public records are physically located at DPOR's Public Records Section: 9960 Mayland Drive, Suite 400, Richmond, VA 23233. While DPOR works to ensure the accuracy of the data provided online, the data available on these pages are updated routinely but may not be up to date at all times (due to document processing delays, technical maintenance, etc.).

DPOR assumes no liability for any errors, omissions, or inaccuracies in the information provided or for any reliance on data provided online. While DPOR has attempted to ensure that the data contained herein are accurate and reflect the status of its regulants, DPOR makes no warranties, expressed or implied, concerning the accuracy, completeness, reliability, or suitability of this data. If discrepancies or errors are discovered, please inform the Broker and DPOR so that appropriate action may be taken.

The data located on this website are not the public records of the Department of Professional and Occupational Regulation (DPOR). All public records are physically located at DPOR's Public Records Section: 9960 Mayland Drive, Suite 400, Richmond, VA 23233. While DPOR works to ensure the accuracy of the data provided online, the data available on these pages are updated routinely but may not be up to date at all times (due to document processing delays, technical maintenance, etc.).

DPOR assumes no liability for any errors, omissions, or inaccuracies in the information provided or for any reliance on data provided online. While DPOR has attempted to ensure that the data contained herein are accurate and reflect the status of its regulants, DPOR makes no warranties, expressed or implied, concerning the accuracy, completeness, reliability, or suitability of this data. If discrepancies or errors are discovered, please inform DPOR so that appropriate action may be taken.

DPOR License Lookup build 1,198 (built 2017-07-13 02:34:41).

DPOR License Lookup License Number 0402023283

License Details

Name License Number License Description Rank Address Initial Certification Date Expiration Date COFFEE, ROBERT SANDERSON 0402023283 Professional Engineer License Professional Engineer LORTON, VA 22079 1992-06-25 2020-06-30

The data located on this website are not the public records of the Department of Professional and Occupational Regulation (DPOR). All public records are physically located at DPOR's Public Records Section: 9960 Mayland Drive, Suite 400, Richmond, VA 23233. While DPOR works to ensure the accuracy of the data provided online, the data available on these pages are updated routinely but may not be up to date at all times (due to document processing delays, technical maintenance, etc.).

DPOR assumes no liability for any errors, omissions, or inaccuracies in the information provided or for any reliance on data provided online. While DPOR has attempted to ensure that the data contained herein are accurate and reflect the status of its regulants, DPOR makes no warranties, expressed or implied, concerning the accuracy, completeness, reliability, or suitability of this data. If discrepancies or errors are discovered, please inform DPOR so that appropriate action may be taken.

DPOR License Lookup build 1,198 (built 2017-07-13 02:34:41).

DPOR License Lookup License Number 0402037078

License Details							
Name BURHOUSE, JAMES ROSS III							
License Number 0402037078							
License Description Professional Engineer License							
Rank Professional Engineer							
Address BRISTOW, VA 20136							
Initial Certification Date 2002-12-19							
Expiration Date 2020-12-31							

The data located on this website are not the public records of the Department of Professional and Occupational Regulation (DPOR). All public records are physically located at DPOR's Public Records Section: 9960 Mayland Drive, Suite 400, Richmond, VA 23233. While DPOR works to ensure the accuracy of the data provided online, the data available on these pages are updated routinely but may not be up to date at all times (due to document processing delays, technical maintenance, etc.).

DPOR assumes no liability for any errors, omissions, or inaccuracies in the information provided or for any reliance on data provided online. While DPOR has attempted to ensure that the data contained herein are accurate and reflect the status of its regulants, DPOR makes no warranties, expressed or implied, concerning the accuracy, completeness, reliability, or suitability of this data. If discrepancies or errors are discovered, please inform DPOR so that appropriate action may be taken.

DPOR License Lookup build 1,198 (built 2017-07-13 02:34:41).

3.3.1 Key Personnel Resume Forms

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

- a. Name & Title: Robbie Roberts, Senior Project Manager
- b. Project Assignment: Design-Build Project Manager (DBPM)
- c. Name of all Firms with which you are employed at the time of submitting SOQ. In addition, please denote the type of employment (Full time/Part Time): Shirley Contracting Company, LLC (Full Time)

d. Employment History: With this Firm 4.5 Years with Other Firms 19 Years

Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below):

Shirley Contracting Company, LLC

Senior Project Manager, 2014-Present

General responsibilities include design management and oversight. Lead bi-weekly design meetings attended by all design discipline managers and construction staff to include discussions on schedule, owner review comments, environmental permitting as well as right-of-way and utility relocation issues. Manage and perform plan reviews during design phase of projects including constructability reviews, quantity take-offs, and cost estimates. Serve as the key point of contact with the Owner on the Project, acting as the lead for all weekly and monthly progress meetings, communicating weekly planned activities, negotiating and discussing any issues or change orders, and public coordination and outreach. Project management responsibilities during constructor purchasing prior to construction start. Perform daily planning and weekly look-ahead schedules, subcontractor coordination, coordination and scheduling of quality control resources, and responsible for the overall financial management of the Project. Manage, train and develop project management staff and field personnel. Assist in the pursuit of new opportunities for the company.

- I-64 Capacity Improvements Segment III Design-Build (\$182.8M), 5/2019 to 9/2021 Design-Build Project Manager, 1/2018 to 5/2019 – Deputy Design-Build Project Manager
- I-64 Capacity Improvements Segment I Design-Build (\$103.5M), 3/2015 to 12/2017 Senior Project Manager
- Estimating Department 8/2014 to 3/2015 Senior Project Manager

KBS, Inc.

Senior Project Manager, 2011-2014

General responsibilities included operational responsibilities for planning, schedule preparation, purchasing, submittal review, quality control and financial management. Managed, trained and developed project management and field staff. Developed and built relationships with clients, design professionals and subcontractors.

- Chrysler Museum Expansion & Renovation (\$15M), 7/2012 to 7/2014 Senior Project Manager
- Estimating Department 10/2011 to 6/2012 Senior Project Manager

Clark Construction Group, LLC

Project Engineer, 2003-2005, Project Manager, 2005-2006, Senior Project Manager, 2006-2011

General responsibilities included developing and maintaining positive working relationships with owners and design teams. Managed, trained and developed project management staff. Supervised activities related to contract administration, procurement, schedule, submittals, quality control, applications for payment, punch-list and closeout.

- Rosslyn Commons (\$50M), 10/2010 to 9/2011 Senior Project Manager
- Clarendon Center (\$118M), 7/2007 to 9/2010 Senior Project Manager
- Liberty Center (\$30M), 4/2006 to 6/2007 Senior Project Manager
- Westin Hotel Arlington Gateway (\$33M), 6/2005 to 3/2006 Project Manager
- 1875 Pennsylvania Avenue (\$45M), 6/2003 to 5/2005 Project Engineer
- e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:
- Virginia Polytechnic Institute & State University, Blacksburg, VA/ MS / 2003 / Architecture (Construction Management Option)

Virginia Polytechnic Institute & State University, Blacksburg, VA/ BS / 1995 / Business (Finance Major)

- f. Active Registration: Year First Registered/ Discipline/VA Registration #: N/A
- g. Document the extent and depth of your experience and qualifications relevant to the Project.
 - 1. Note your role, responsibility, and specific job duties for each project, not those of the firm.

- 2. Note whether experience is with current firm or with other firm.
- 3. Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.

(List only three (3) relevant projects* for which you have performed a similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated.)

1.I-64 Capacity Improvements - Segment III Design-Build - York County, Virginia

Shirley Contracting Company, LLC, Design-Build Project Manager (5/2019 to 9/2021, Deputy Design-Build Project Manager (1/2018 to 5/2019)

Responsibilities: As Design-Build Project Manager and Deputy DBPM, with design management responsibility, led meetings with full design team including environmental, traffic, roadway, drainage and structural disciplines for the \$178 million project. Robbie's responsibilities include the preparation of design meeting minutes and tracking of deliverables and performing frequent plan reviews for completeness and compliance with contract requirements. He prepared preliminary and full baseline construction schedule submissions and compiled and edited Quality Assurance and Quality Control Plan to meet or exceed minimum requirements for design-build projects. Robbie also provided data required for environmental permit applications. He scheduled, led and prepared meeting minutes for Monthly Owner Progress Meetings throughout the design phase, and prepared monthly updates to the preliminary and approved baseline construction schedules, as well as monthly applications for payment and reports. Robbie led the Team from the start of construction and conducts safe start meetings with Shirley and subcontractor crews. He managed the start of Stage 1 construction in August 2018, which incorporated day and night time activities, and concurrently managed staff in the performance of ongoing design reviews, quantity checks and design review comment resolution. His duties also include issuing purchase orders and subcontracts for Stage 1 work. He coordinated with VDOT staff on both design and construction related matters and participated in public information meetings to share general project information and details addressing environmental concerns. He also coordinated with adjacent projects, primarily the I-64 Segment II Project. The project's scope included the addition of a new travel lane and inside shoulder, both eastbound and westbound, for over 8 miles in York County, Virginia. Scope also included replacement of bridges over Queens Creek, widening of bridges over Lakeshead Drive and Colonial Parkway, stormwater management ponds, and noise walls.

2.I-64 Capacity Improvements – Segment I Design-Build – Newport News, Virginia Shirley Contracting Company, LLC, Senior Project Manager (3/2015 to 12/2017)

Responsibilities: Robbie performed design management and plan review and was responsible for project delivery including planning, schedule preparation, purchasing, subcontractor coordination, quality control, public outreach, and financial management. His duties included coordination with VDOT to include Weekly Construction Update Meetings and Monthly Owner Progress Meetings. He frequently communicated with and provided construction updates to the City of Newport News engineering and waterworks departments. Robbie established a direct working relationship with the point of contact for all work over and adjacent to the CSX railroad. He executed agreements for access, prepared and submitted demolition and erection plans, participated in CSX Preconstruction Meetings, provided schedule information and communicated daily requirements with the flagman assigned to the project. Robbie worked closely with VDOT to incorporate scope items added by work order without any additional time. He managed the construction and quality teams in expediting punch list work and submission of the materials notebook. The project was delivered on time, December 1, 2017. The \$103.5 million widening project included the addition of a new travel lane and inside shoulder, both eastbound and westbound, for almost 6 miles in Newport News, Virginia. The scope included the full replacement of bridges over Industrial Park Drive and adjacent CSXT railroad tracks, widening of bridges over Fort Eustis Boulevard and Lee Hall Reservoir, stormwater management ponds, and noise walls.

3. Clarendon Center – Arlington, Virginia

Clark Construction Group, LLC, Senior Project Manager (7/2007 to 9/2010)

Responsibilities: Robbie was the Lead Project Manager from preconstruction through closeout for the \$118 million Clarendon Center South and North projects in Arlington County, Virginia, for affiliate Clark Construction Group, LLC. The projects included two new office buildings and an apartment building with an elevated, landscaped plaza area over four levels of below grade parking on either side of the Clarendon Metro Station beneath Clarendon Boulevard. Robbie's responsibilities included development of the project schedule, purchasing of subcontractors and suppliers, assisting the client with utility relocations, design and constructability reviews, management of the design-build subcontractor for electrical work, management of self-perform support of excavation and cast-in-place concrete work, and management of project staff. He also supervised numerous scope additions requested by the owner and coordinated the completion of the project with ongoing tenant fit-out projects in the office and retail spaces. The project was completed on time and on budget.

*On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.

h. For Key Personnel required to be on-site full-time for the duration of construction and for Quality Assurance Manager (QAM), provide a current list of assignments, role, and the anticipated duration of each assignment. Not applicable for this position.

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title: Robert S. Coffee, PE, Senior Structural Project Manager

b. Project Assignment: Entrusted Engineer in Charge (EIC)

c. Name of all Firms with which you are employed at the time of submitting SOQ. In addition, please denote the type of employment (Full Time/Part Time): Shirley Contracting Company, LLC (Full Time)

d. Employment History: With this Firm 27 Years With Other Firms 0 Years

Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below):

Shirley Contracting Company, LLC

Senior Structural Project Manager, 1999-Present

Responsibilities include collaborating with design engineers during the design phase of projects to determine scope and methods of construction for the particular structures. Perform constructability reviews and provide comments to the design team. Attend regularly scheduled design meeting to provide status updates and interact across all disciplines of design including roadway, structural, noise walls, and environmental permitting. Perform quantity takeoffs and solicit subcontractor and supplier quotations. Provide design and working drawings for support of excavation, girder erection plans, demolition plans, stream diversions, and structural false work. Interface with all design disciplines during construction including review and comment of major submittals and working drawing as well as authoring field changes RFI's. Purchase, negotiate, and develop contract agreements with subcontractors and suppliers. Work with the project construction teams to develop the CPM Schedule for the structural activities on the Project sas well as organize and finalize project budgets prior to construction. Determine needed resources including manpower, equipment, and materials while staying in line with budgetary requirements. Organize and lead weekly project staff meetings to detail out three week look-ahead schedules, determine status of critical submittals, discuss manpower and equipment issues, and review production quantities in place and overall financial status of the work. Coordinate updating and revising logic in the monthly CPM schedule updates. Establish and maintain strong relationships with owner, subcontractors, and suppliers.

- I-64 Capacity Improvements Segment III Design-Build, (\$182.8M), 1/2018 12/2019, Senior Structural Project Manager
- I-95/Route 630 Reconstruction and Widening Design-Build, (\$105.9M), 5/2017 12/2018, Senior Structural Project Manager
- I-64 Capacity Improvements Segment I Design-Build, (\$103.5M), 4/2015–12/2017, Senior Structural Project Manager
- Route 606 Loudoun County Parkway/Old Ox Road Reconstruction and Widening Design-Build, (\$92.9M), 6/2015 – 12/2017, Senior Structural Project Manager
- Route 27/244 Interchange Modifications Design-Build, (\$32.5M), 9/2011 to 11/2015, Senior Structural Project Manager
- I-95 4th Lane Widening, (\$91M), 3/2008 10/2011, Senior Structural Project Manager
- Quantico Bridge Replacement, (\$5.9M), 3/2008 11/2010, Senior Structural Project Manager
- Southern Avenue Bridge Replacement over Suitland Parkway Design/Build, (\$10M), 6/2004 to 5/2006, Senior Structural Project Manager
- e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:

Virginia Polytechnic Institute and State University, Bachelor of Science/1985/Civil Engineering

f. Active Registration: Year First Registered/ Discipline/VA Registration #:

1992 Virginia Registered Professional Engineer #0402023283

- g. Document the extent and depth of your experience and qualifications relevant to the Project.
 - 1. Note your role, responsibility, and specific job duties for each project, not those of the firm.
 - 2. Note whether experience is with current firm or with other firm.
 - 3. Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.

(List only three (3) relevant projects* for which you have performed a similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated.)

1. I-64 Capacity Improvements-Segment I Design-Build, Newport News, VA

Shirley Contracting Company, LLC, Senior Structural Project Manager (4/2015 to 12/2017)

Responsibilities: Rob was responsible for the structural design oversight and construction for the widening of approximately 5 miles of I-64 from two-lanes in each direction to three-lanes in each direction, including the widening of two sets of parallel bridges (over Lee Hall Reservoir and over Fort Eustis Boulevard) and for the complete replacement of the parallel bridges over Industrial Park Drive and CSX Railroad. Rob attended bi-weekly meetings with the design and permitting teams and the monthly coordination meetings with VDOT throughout design and construction. Rob provided detailed design and constructability reviews for all major structures including analysis of geotechnical data and foundation options. Due to the construction phasing, geotechnical constraints, as well as the tight working environment, for all structures, Rob fully integrated the design documents and minimized issues during construction. He was responsible for the complete oversight of all structural operations on the site that included six bridges as well as 210,000 square feet of soundwalls. He coordinated all work with the construction QA and QC teams and collaborated with the lead roadway and bridge engineers throughout construction to quickly resolve construction issues and design clarifications. Rob led Shirley's efforts for the two phased demolition and reconstruction of the twin bridges carrying I-64 over Industrial Park Drive which were completed in just 19 months, including a 4 month settlement period for one of the abutments.

2. Route 606 Loudoun County Parkway/Old Ox Road Reconstruction and Widening Design-Build, Loudoun County, VA

Shirley Contracting Company, LLC, Structural Project Manager (6/2015 to 12/2017)

Responsibilities: Rob was responsible for the structural design oversight and construction for the widening of the \$92.9M Project consisting of widening of 6 miles of Route 606 to a 4-lane divided highway including construction of two new bridges, multiple retaining walls, box culverts, and three sound barrier walls. Rob served as the Senior Structural Manager during design of the complex twin bridges carrying Route 606 over a newly constructed spillway of the existing Horsepen Lake and Dam located on the Metropolitan Washington Airport Authority's (MWAA) Dulles Airport property. Rob coordinated all design and selection of bridge elements with construction techniques and procedures to create clean and efficient plan documents. Phasing of the bridge abutments including the initial extension of the existing box culvert serving as the primary overflow outfall of Horsepen Lake. To the delight of the U.S. Army Corps of Engineers and MWAA, Rob's team redesigned the RFP concept of the box culvert extension by introducing a pile supported protection slab over the existing box culvert thus reducing the disturbance to the existing earther dam and elimination of support of excavation. Rob developed all working drawings including beam erection, soundwall foundations, stream diversions, and lifting diagrams; coordinating all work with the design engineers as well as the QA and QC staff.

3. I-95 4th Lane Widening, Fairfax and Prince William Counties, VA

Shirley Contracting Company, LLC, Structural Project Manager (3/2008 to 10/2011)

Responsibilities: Rob was responsible for the overall structural construction operations for the widening of approximately six miles of Interstate I-95 including 10 bridge widenings and over 200,000 square feet of design-build retaining/sound barrier combination walls. The I-95 bridges over the Occoquan River introduced a new travel lane and shoulder to the 800-foot-long structure, entailed the substructure construction of three piers in the river founded on drilled shafts and 70' high columns and caps. Structural steel girders with span lengths of 200' supported the deck structure above. Rob was responsible for all working drawings including cofferdams, barge supported crane lifting and girder erections plans and all concrete falsework. Rob also served as the design-build manager for the eight combination retaining/sound barrier combination walls along the project alignment. Rob integrated all geotechnical data as well as working constraints that limited equipment sizing and material deliveries to develop the most economical and efficient design. All walls used drilled shaft support columns with 16' to 20' spacing along with intermediate wall supports with precast concrete lagging serving as the retaining elements. Rob managed all construction of the walls including three drilling crews and two soundwall installation crews in order to meet the aggressive construction schedule. Rob coordinated all work with the lead design and construction discipline managers working directly with VDOT's staff and engineers to create a collaborative and partnering team. The project was a huge success and completed on time.

* On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.

h. For Key Personnel required to be on-site full-time for the duration of construction and for Quality Assurance Manager (QAM), provide a current list of assignments, role, and the anticipated duration of each assignment. **Not Applicable for this position**.

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

- a. Name & Title: S. Scott Shropshire, P.E., CCM
- b. Project Assignment: Quality Assurance Manager (QAM)

c. Name of all Firms with which you are employed at the time of submitting SOQ. In addition, please denote the type of employment (Full time/Part Time): Quinn Consulting Services, Inc. (Full-Time)

d. Employment History: With this Firm <u>1</u> Years With Other Firms <u>22</u> Years

Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below):

Quinn Consulting Services, Inc.

Professional Engineer/Quality Assurance Manager, 4/2018 – Present

Scott's responsibilities as Quality Assurance Manager (QAM) include provide construction quality oversight on contract work with a varying degree of complexity and scope. Responsible for the quality assurance inspection and testing of all materials and work performed on the project. Ensures all work, materials, sampling and testing are in conformance with the Approved for Construction plans, specifications, and contract documents. Verifies all design related work packages submitted for payment have been certified by the Design Manager. Plans and conducts Preparatory Inspection Meetings prior to the start of scheduled work activities. Monitors the construction quality control program. Issues Non-Conformance Reports for deficient work and determine acceptance following corrective action. Reviews project inspection documentation and maintains the project's Materials Notebook. Certifies all work has been completed in conformance with the contractual documents for request for payment.

- I-95 SB CD Lanes-Rappahannock River Crossing Design-Build (\$132M) 9/2018 to 5/2022 Deputy QAM
- I-95/Route 630 Reconstruction and Widening Design-Build (\$105.9M) 4/2018 to 7/2020 QAM
- Route 606 Bridge Replacement over I-95 with 606 Improvements Design-Build (\$18.7M) 12/2018 to 9/2019 Deputy QAM

Rinker Design Associates

Director of Construction, Southern Virginia Region, 2015-2018

Scott oversaw all construction inspection, quality assurance and quality control activities. He provided leadership and direction on all construction engineering assurance and inspection activities, coupled with seamlessly working with design staff in accomplishing constructability reviews and providing construction recommendations/suggestions during development of project plans, ensuring all construction inspection and testing were performed, completed, and recorded in accordance with contract documents.

A. Morton Thomas & Associates, Inc.

Quality Control Engineer, Fredericksburg, Virginia, 2014-2015

Scott focused on the delivery of transportation related projects through Design-Build procurements. He performed as the Quality Control Manager, accountable to the Design-Build Project Manager, reporting inspection and testing results during construction operations. Implemented inspection and testing requirements for contract related work in accordance with the approved, project specific QA/QC Plan.

Virginia Department of Transportation

Area Construction Engineer/Acting Residency Administrator, Fredericksburg, Virginia, 2006-2014

Scott was the construction program Responsible Charge Engineer for a 14-county area. He provided leadership and technical guidance for inspectors, construction managers, contract administration and consultant staff in the delivery of the six-year highway construction program via traditional Design-Bid-Build and Design-Build procurements.

Virginia Department of Transportation

Acting Residency Administrator/ Assistant Residency Administrator, Fredericksburg, Virginia - 2004-2006

Scott was responsible for delivering the residency maintenance program. He conducted assessments and reviews of complaints to develop cost effective solutions for maintenance problems. Directed maintenance and engineering staff in the resolution of maintenance issues for a wide range of projects of varying complexity.

- e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:
- Virginia Military Institute, Lexington, VA / B.S. / 1996 / Civil Engineering
- f. Active Registration: Year First Registered/ Discipline/VA Registration #: 2005 VA Registered Professional Engineer: #402035812
- g. Document the extent and depth of your experience and qualifications relevant to the Project.
 - 1. Note your role, responsibility, and specific job duties for each project, not those of the firm.
 - 2. Note whether experience is with current firm or with other firm.

3. Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.

(List only three (3) relevant projects* for which you have performed a similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated.)

1. I-95/Route 630 Reconstruction and Widening Design-Build – Stafford County, Virginia *Quinn Consulting Services, Inc., Quality Assurance Manager (4/2018- 7/2020)*

Responsibilities: Scott leads the QA/QC team and reviews project documentation for this \$105 million Design-Build bridge and roadway reconstruction project. He is responsible for assuring compliance with the VDOT Minimum Standards on Design-Build Projects and the project QA/QC Plan. In addition, Scott updated and implemented the project QA/QC Plan, chairs Preparatory Meetings, reviews and certifies monthly pay applications, and issues and documents the resolution of project Non-Compliance Reports (NCR's). Proactively communicates and coordinates with Design-Build team and VDOT regarding QA/QC program matters ensuring conformance with contract documents. Coordinates, as needed, with the Engineer of Record relative to Requests for Information (RFIs), and design-related clarifications for construction. Project work activities include but are not limited to; erosion & sediment control, MOT operations, clearing & grubbing, grading and drainage, subbase and paving, structure demolition, steel H-pile driving, concrete construction for various bridge elements, precast bulb-T girder erection, striping, and signage. This project is located within the same corridor; seven miles north of the proposed I-95 Northbound Rappahannock Project. Since assuming the role of QAM, the QA/QC program has greatly improved with respect of coverage of activities, organizational structure and reporting. He is responsible for overseeing inspection of TMP/MOT, Interstate roadway construction, Interstate interchange modifications, environmental (E&S and SWM), drainage, asphalt, pavement markings, overhead signs, and bridge construction.

2. Route 606 Bridge Replacement over I-95 with 606 Improvements Design-Build – Spotsylvania County, Virginia Quinn Consulting Services, Inc., Deputy Quality Assurance Manager (12/2018-09/2019)

Responsibilities: As Deputy Quality Assurance Manager (QAM) on this \$18.6 million Design-Build project Scott maintains and oversees the implementation of the project QA/QC Plan, delivers and documents Preparatory Meetings, certifies Monthly Pay Estimates, oversees the maintenance of the project Materials Book, issues and documents the resolution of project Non-Compliance Reports (NCR's), and reviews project QA and QC documentation for compliance with VDOT Minimum Standards on Design-Build Projects. Additionally, he monitors the QC program and conducts weekly QA/QC meetings to discuss issues and potential resolutions, project lookahead schedule, and coordinate documentation to ensure compliance with the contract documents. Coordinates, as needed, with the Engineer of Record relative to Requests for Information (RFIs), and design-related clarifications for construction. Mr. Shropshire oversees the construction, inspection and reporting of Interstate TMP/MOT, interstate roadway construction, Interstate interchange modifications, environmental (E&S and SWM), drainage, asphalt, pavement marking, overhead signs, and bridge construction. The project is located within the same VDOT District as I-95 NB Rappahannock Project. As Deputy QAM, Mr. Shropshire successfully partnered with Contractor and VDOT to streamline construction, inspection, and reporting processes resulting in early delivery of the project.

3. I-95 Southbound CD Lanes-Rappahannock River Crossing Design-Build – Fredericksburg, Virginia Quinn Consulting Services, Inc., Deputy Quality Assurance Manager (9/2018- 5/2022)

Responsibilities: Scott's role as Deputy QAM involves Quality Assurance inspection and testing of all materials used and work performed on the Project, to include monitoring of the contractor's Quality Control (QC) program. Reviews project inspection documentation and maintains the project's Materials Notebook. He ensures that all work and materials, testing, and sampling are performed in conformance with the contract requirements, the "Approved for Construction" plans and specifications. Actively communicates and coordinates with Design-Build team and VDOT regarding QA/QC program matters ensuring conformance with contract documents. Coordinates, as needed, with the Engineer of Record relative to Requests for Information (RFIs), and design-related clarifications for construction. Assists with and conducts Preparatory Inspection Meetings prior to the start of major activities to adherence to the project QA/QC plan and compliance with the contract. Provides assistance in the review of monthly pay applications, coordinates with QA inspection staff to ensure adequate coverage of daily construction activities. Verifies all design related work packages submitted for payment have been certified by the Design Manager. Attends and participates in weekly QA/QC meetings and offers quality input relative to active and upcoming work activities on the project. Mr. Shropshire partnered with Contractor, QC, and VDOT to streamline construction, inspection, and reporting processes successfully with positive results and mitigating rework.

* On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.

h. For Key Personnel required to be on-site full-time for the duration of construction and for Quality Assurance Manager (QAM), provide a current list of assignments, role, and the anticipated duration of each assignment.
I-95/Route 630 Reconstruction and Widening- QAM – anticipated assignment until July 2020
I-95 SB CD Lanes-Rappahannock River Crossing – Deputy QAM – anticipated assignment until May 2022
Route 606 Bridge Replacement over I-95 with 606 Improvements – Deputy QAM – anticipated assignment until

September 2019

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

- a. Name & Title: Jeremy Beck, P.E., Associate Vice President
- b. Project Assignment: Design Manager (DM)

c. Name of all Firms with which you are employed at the time of submitting SOQ. In addition, please denote the type of employment (Full time/Part Time) : **Dewberry Engineers Inc. (Full Time)**

d. Employment History: With this Firm <u>17</u> Years With Other Firms <u>0</u> Years

Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below):

Dewberry Engineers Inc.

Project Manager/Roadway Design Engineer, 2002 to Present

As a Project Manager and Associate Vice President for Dewberry, Jeremy has over 17 years of experience developing, managing, and successfully delivering numerous design-build and design-bid-build civil engineering projects valued at over \$950 million. Jeremy demonstrates effective leadership, management, and delegation skills and has extensive experience advising executive leadership and guiding team members. He possesses a thorough understanding of civil engineering project management principles. As Design Manager, Jeremy serves as the single point of contact for all design related elements throughout the lifespan of the project and is responsible for ensuring the overall project design is in conformance with the Contract Documents.

- Warrenton Southern Interchange US 15/17/29 Design-Build (\$19.6M): Design 4/2018 to 1/2019 Design Manager;
- Route 28 Phase III Design-Build (\$25.2M): Design 4/2018 to 4/2019 Design Manager;
- Salem and Edinburg Bridge Bundles (\$21M): 10/2013 to 12/2018 Roadway Design Manager;
- Route 606 Bridge Replacement Over I-95 with Route 606 Improvements Design-Build (\$18.7M): Design 12/2016 to 6/2019 Design Manager;
- Dulles Corridor Metrorail Project Phase 2A Design-Build, (Responsible for \$325M): 6/2013 to 11/2015 - West Segment Design Manager;
- University Boulevard Extension PPTA Design-Build (\$30.8M), 8/2010 to 12/2013 Design Manager;
- Spotsylvania County Design-Build (\$12.5M), 10/2008 to 10/2015 Design Manager;
- Route 7/River Creek Parkway Interchange (\$25M), 7/2006 to 11/2010 Design Manager;
- Dulles Greenway Capital Improvements Design-Build (\$71M), 5/2005 to 9/2007 Roadway Design Engineer;
- Route 28 Corridor Improvements Design-Build (\$463M), 9/2002 to 6/2011 Roadway Design Engineer
- e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:

The Pennsylvania State University, State College, PA /B.S. / 2002 / Civil Engineering

- f. Active Registration: Year First Registered/ Discipline/VA Registration#: 2009/Professional Engineer/VA # 0402043254; Advanced Work Zone Traffic Control Training/Verification No. 113018635
- g. Document the extent and depth of your experience and qualifications relevant to the Project.
 - 1. Note your role, responsibility, and specific job duties for each project, not those of the firm.
 - 2. Note whether experience is with current firm or with other firm.
 - **3**. Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.

(List only three (3) relevant projects* for which you have performed a similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated.)

1. Route 606 Bridge Replacement Over I-95 with Route 606 Improvements Design-Build – Spotsylvania County, VA

Dewberry Engineers Inc., Design Manager, Design 12/2016 to 8/2017

Responsibilities: Jeremy oversaw all design activities along with the development, approval, and acquisition of project plans and permits for the \$18.7M interchange replacement project. The hybrid diamond interchange connected the northbound I-95 ramps to an existing roadway that is perpendicular to the I-95 overpassing roadway. Jeremy developed unique geometric designs, performed significant coordination with adjacent properties and projects to implement and complete several Design Exceptions, as well as prepare an IMR suitable for review and approval

by VDOT and FHWA.

The project included design and construction of a new bridge over I-95 directly adjacent to a structurally deficient bridge, requiring extensive geotechnical and structural design coordination to address vibration and down drag issues. The RFP concept depicted the new bridge at the same location of the existing bridge which placed the new bridge and piers extremely close to the existing bridge - requiring time-consuming phased construction of the new bridge.

To address concerns with the existing bridge, Jeremy oversaw the development of an alternative alignment that allowed construction of the new bridge without impacting the existing bridge. To ensure the existing piers and abutments did not experience excessive vibrations during pile driving operation, vibration sensors were mounted to the existing piers and abutments and monitored during pile driving. The vibrations, as verified by the sensors, was well within the limits established by the geotechnical engineer and there were no adverse impacts to the existing bridge during construction of the new bridge.

Jeremy oversaw the development of a TTC plan allowing traffic to operate while construction was ongoing within the median and adjacent to I-95 while also providing continuous access to existing businesses. He also prepared for and attended public hearings, directly weekly meetings, interacted with various public agencies, controlled design related cost and schedule items, managed various sub-consultants, directed design QC activities, and ultimately provided design deliverables on-time.

2. Dulles Corridor Metrorail Project, Phase 2 Design-Build – Loudoun County, VA Dewberry Engineers Inc., West Segment Design Manager, 6/2013 to 11/2015

Responsibilities: Jeremy coordinated civil design activities for approximately \$325M worth of heavy highway and transit elements related to the 23-mile extension of rail. As West Segment Design Manager, Jeremy was responsible for design of 5.5 miles of freeway (Dulles Greenway) widening to accommodate construction of the rail extension in the median. Design scope included widening, realignment and overlay of the Dulles Greenway and design of new closed system drainage facilities to accommodate the metrorail facilities; secondary road improvements adjacent to the new metro stations; three track bridges (including a new bridge over Broad Run); 11 miles of track retaining wall; and numerous stormwater management facilities. Jeremy was responsible for coordination with other design disciplines and adjacent design-build projects for the completion of two new at-grade stations, park and ride facilities, pedestrian bridges, and tie-breaker stations and traction power substations in constrained locations.

Jeremy led and coordinated civil design efforts with MWAA, WMATA, VDOT, Loudoun County, Toll Road Investors Partnership II (TRIP II) in addition to numerous private developers and land owners which included the transition from Part II-C to Part II-B Virginia Stormwater Management Program requirements. He attended weekly meetings with MWAA, VDOT and Loudoun County where numerous project related items were reviewed and resolved in order to continuously advance the project. He served as the point of contact between the Design-Build team and the various public agencies on design related issues, managed design subconsultants, ensured timely delivery of studies, reports and project plans, oversaw design quality control activities, and provided construction engineering support.

Jeremy also integrated significant structural elements, multi-phase traffic control plans, challenging sub-surface conditions, unique construction techniques, as well as floodplain modeling into the overall design. He minimized environmental, utility and right-of-way impacts ran weekly coordination meetings, managed several subconsultants, and delivered contract deliverables on time and within budget.

3. Warrenton Southern Interchange US 15/17/29 Design-Build – Fauquier County, VA Dewberry Engineers Inc., Design Manager, Design 4/2018 to 1/2019

Responsibilities: Jeremy evaluated project requirements, formulated eight different interchange alternatives during procurement, and vetted concepts with the VDOT. Ultimately, he helped provide the lowest cost solution (double-roundabout interchange fully delivered for \$19.6M) which was awarded to the Shirley/Dewberry Team.

Once under design, Jeremy managed all design disciplines to deliver approved plans and permits within seven months from contract award. Jeremy's design innovation included modified ramp configurations which reduced right-of-way impacts to two parcels and addressed traffic and safety concerns by placing the majority of the interchange outside of existing roadways while minimizing other impacts.

Jeremy coordinated NEPA concurrence activities, provided extensive landscaping design in coordination with Journey Through Hallowed Ground representatives, prepared for and attended public hearings, directly weekly meetings, interacted with various public agencies, controlled design related cost and schedule items, managed various sub-consultants, directed design quality control activities, and ultimately provided design deliverables on-time.

* On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.

h. For Key Personnel required to be on-site full-time for the duration of construction and for Quality Assurance Manager (QAM), provide a current list of assignments, role, and the anticipated duration of each assignment.

Not applicable for this position.

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

- a. Name & Title: Greg Johannes, Contract Manager
- b. Project Assignment: Construction Manager (CM)

c. Name of all Firms with which you are employed at the time of submitting SOQ. In addition, please denote the type of employment (Full time/Part Time) : Shirley Contracting Company, LLC (Full Time)

d. Employment History: With this Firm <u>12</u> Years With Other Firms <u>30</u> Years

Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below):

Shirley Contracting Company, LLC

Construction Manager, January 2007-Present

Responsibilities include collaborating with design engineers during the design phase of projects to determine scope and methods of construction. Perform constructability reviews and provide comments to the design team. Perform quantity take-offs and solicit subcontractor and supplier quotations. Purchase, negotiate, and develop contract agreements with subcontractors and suppliers. Work with the project construction teams to develop the CPM Schedule and organize and finalize project budgets prior to construction. Determine needed resources including manpower, equipment, and materials while staying in line with budgetary requirements. Organize and lead weekly project staff meetings to detail out threeweek look ahead schedules, determine status of critical submittals, discuss manpower and equipment issues, and review production quantities in place and overall financial status of the work. Coordinate and schedule all construction work with the quality control and quality assurance staff on the project and assist in updating and revising logic in the monthly CPM schedule updates. Establish and maintain strong relationships with the owner, subcontractors, and suppliers.

- I-95/Route 630 Reconstruction and Widening Design-Build (\$105.9M) 7/2016 to 8/2020-Construction Manager.
- I-64 Exit 91 Design-Build, (\$20.5M) 7/2015 12/2015 Construction Manager.
- Intercounty Connector Contract 'D/E' Design-Build, (\$107.1M) 1/2012 to 1/2015 Construction Manager
- Intercounty Connector Contract 'C' Design-Build, (\$528M) 1/2008 to 12/2011 Construction Manager, Estimator, 1/2007- 1/2008 - Developed detailed costs estimates for civil construction projects

The Lane Construction Corporation

Project Manager, 1979 - 2006

Managed all aspects of projects he was assigned to ranging in value from \$10 million to \$200 million. Responsible for planning and scheduling of all work activities, coordinating with owners, designers and subcontractors. Managed submittal process and pay estimate requests and oversaw project safety program.

- I-540 Construction Wake County, (\$102M) 2004-2006, Project Manager
- Largo Station Blue Line Design-Build, (\$217M) 2002-2004, Project Manager
- e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:

S.U.N.Y. Alfred Agricultural & Technical College, Alfred, New York / AAS / 1979 / Civil Engineering

f. Active Registration: Year First Registered/ Discipline/VA Registration #:

Virginia Department of Environmental Quality Responsible Land Disturber Certification #RLD 04533 VDOT Erosion and Sediment Control Contractor Certification (ESCCC) # 3-00580

g. Document the extent and depth of your experience and qualifications relevant to the Project.

- a. Note your role, responsibility, and specific job duties for each project, not those of the firm.
- b. Note whether experience is with current firm or with other firm.
- c. Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.

(List only three (3) relevant projects* for which you have performed a similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated.)

1. Intercounty Connector Contract (ICC) D/E Design-Build - Prince George's County, MD *Shirley Contracting Company, LLC, Construction Manager (1/2012 – 1/2015)* **Responsibilities:** During the design phase of the Project, Greg served as the Design-Build Project Manager for the \$89 million ICC Contract D/E Project, the final segment of the 18.8-mile ICC tolled highway in Prince George's County, Maryland. Once construction began, Greg transitioned to the Construction Manager role. He was responsible for contract administration and management of the overall design-build process including design, permitting, utility relocation, construction, QA/QC, environmental compliance, and community relations. He was also the main point of contact for communication and coordination with the Owner, permitting agencies, residents and businesses impacted by the project as well as all other project stakeholders. He updated and maintained the project schedule, coordinated subcontractors and suppliers, managed Shirley's self-perform crews, and the QA/QC process during construction. Greg was also responsible for maintaining close coordination with CSX Railroad and Marc train as well local business owners impacted by the Project. He managed the extension of the ITS toll systems, Fiber Optic and signal interconnect cabling as well other major utilities that required relocation including a 42" waterline for WSSC, electrical duct bank and electric pole lines with telephone, cable, and a 12" sanitary sewer.

2. Intercounty Connector (ICC) Contract C Design-Build - Montgomery and Prince George's County, MD Shirley Contracting Company, LLC, Construction Manager (1/2008 – 12/2011)

Responsibilities: Greg was responsible for constructability reviews during the design process, coordination of utility design and relocation work and oversight of construction in accordance with the approved contract plans. He verified QC for environmental permitting and ensured that the plans were within permit and regulatory requirements for this \$528 million design-build project. Greg provided monthly project status reports to the Maryland State Highway Administration, updated the project's CPM schedule, conducted regular progress and jobsite safety meetings, prepared/obtained and reviewed required Trainee, DBE, EEO and certified payroll documentation. During the construction phase, he was responsible for the daily scheduling of work activities including Shirley's personnel and subcontractors, material deliveries, rental equipment and trucks. He also coordinated with the Project's QC staff to ensure that all construction materials and activities were inspected as required.

3. I-540 Construction Wake County – Wake County, NC

The Lane Construction Corporation, Project Manager (3/2004 - 11/2006)

Responsibilities: Greg was responsible for managing construction activities on this \$102 million project in accordance with the approved plans and within permit and regulatory requirements. Greg developed and updated the Project CPM schedule, coordinated subcontractor safe start meetings, conducted regular progress and jobsite safety meetings, and prepared/obtained and reviewed required materials documentation. He ensured compliance with the Project's QC requirements, managed the overall project erosion and sediment control measures, traffic safety functions and other work disciplines throughout the course of the Project. Greg was responsible for scheduling all of Lane's crews and subcontractors, material deliveries, rental equipment, and trucks for the work that includes roadway and bridge construction, temporary and permanent signals, lighting, box culverts, retaining wall construction, utility relocations, storm water management basins, close coordination with CSX railroad during construction of two bridges over the railroad, as well as other typical roadway construction activities. The project included the construction of over 5 miles of 6-lane divided interstate highway on a new alignment, and three new interchanges in an urban setting, extensive maintenance of traffic, pavement rehabilitation on the existing roads tying the new ramps in.

* On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.

h. For Key Personnel required to be on-site full-time for the duration of construction and for Quality Assurance Manager (QAM), provide a current list of assignments, role, and the anticipated duration of each assignment.

Greg is the Construction Manager currently assigned to the I-95/Route 630 Project which is scheduled for completion in July of 2020 and will be available full-time prior to the start of construction.

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

- a. Name & Title: J. Ross Burhouse, P.E., Senior Associate
- b. Project Assignment: Lead Structural Engineer

c. Name of all Firms with which you are employed at the time of submitting SOQ. In addition, please denote the type of employment (Full time/Part Time) : **Dewberry Engineers Inc. (Full Time)**

d. Employment History: With this Firm 17 Years With Other Firms 5 Years

Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below):

Dewberry Engineers Inc.

Project Manager/Lead Bridge Engineer, 2005 to Present Structural Engineer/Project Engineer, 2002 to 2005

General responsibilities include leading the design of highway and rapid transit bridges for numerous design-build and design-bid-build projects. Highway bridge design experience varies from prestressed concrete beam bridges over water to curved steel flyover ramps and multi-span plate girder bridges. Also led the design of bridges and retaining walls supporting rapid transit for Metrorail. Project responsibilities include preparation of design drawings and calculations; coordination with roadway, stormwater management/water resources, and geotechnical engineers; performing quality control reviews; signing and sealing bridge construction plans, and overseeing review of shop drawings and RFI responses during construction.

- I-64 Capacity Improvements Segment III Design-Build (\$182.8M), 11/2018 to 5/2019, Senior Structural Engineer
- Route 28 Phase III Design-Build (\$25M,: 4/2018 to 4/2019 (Design) Lead Structural Engineer
- Dulles Greenway East End Widening (\$13.9M), 11/2017 to 11/2018 (Design) Lead Bridge Engineer
- Dulles Corridor Metrorail Project Phase 2A (\$1.5B), 9/2012 to 7/2013, Lead Bridge Engineer
- Route 659 (Belmont Ridge Road) Reconstruct to 4-Lanes Design-Build (45.1M), 11/2015 to 1/2018 (Design) - Lead Bridge Engineer
- Route 606 Reconstruction & Widening Design-Build (\$92.9M), 8/2014 to 11/2017 (Design) Lead Bridge Engineer
- I-64 Capacity Improvements Segment I Design-Build (\$103.5M), 8/2015 to 3/2016 (Design) Senior Structural Engineer
- Route 7–WB Truck Climbing Lane Design-Build (\$28M), 3/2015 to 7/2015 Senior Structural Engineer
- Interstate 64 Exit 91 Design-Build (\$20.5M), 9/2012 to 4/2015 (Design) Lead Bridge Engineer
- Route 27/244 Interchange Modification Design-Build (\$32.5M), 1/2012 to 10/2013 Senior Structural Engineer
- Sycolin Road Overpass Design-Build (\$11.8M), 12/2012 to 9/2013 (Design) Lead Bridge Engineer
- Route 7/659 Interchange (\$45M), 9/2011 to 6/2013 (Design) Senior Structural Engineer
- InterCounty Connector (ICC) Contract D/E Design-Build (\$107M), 2/2012 to 10/2012 Senior Structural Engineer
- NB Route 29 over Tye River Bridge Replacement Design-Build (\$6.7M), 3/2010-3/2012 Lead Bridge Engineer
- Dulles Corridor Metrorail Project Phase 1 Design-Build (\$8.7M), 1/2005 to 5/2010 Lead Bridge Engineer
- Interstate 95/Telegraph Road Interchange (\$244M), 1/2002 to 6/2007 Structural Engineer
- e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: University of Maryland, College Park, MD / M.S. / 2001 / Civil Engineering Princeton University, Princeton, NJ / B.S. / 1996 / Civil Engineering
- f. Active Registration: Year First Registered/ Discipline/VA Registration #: 2002 / Professional Engineer / Virginia #04032037078
- g. Document the extent and depth of your experience and qualifications relevant to the Project.
 - 1. Note your role, responsibility, and specific job duties for each project, not those of the firm.
 - 2. Note whether experience is with current firm or with other firm.
 - 3. Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.

(List only three (3) relevant projects* for which you have performed a similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated.)

1. Dulles Corridor Metrorail Project, Phase 2A Design-Build, Fairfax & Loudoun Counties, Virginia Dewberry Engineers Inc., Lead Bridge Engineer (7/2013 – 7/2019)

Responsibilities: Ross was responsible for the design of three rapid transit bridges and a section of aerial guideway. Design included two pairs of steel thru-girder bridges with single spans of 130 and 150-feet constructed in the median of the Dulles Access Road, and a 430-foot three-span continuous curved steel plate girder bridge with compound curvature crossing Broad Run in the median of the Dulles Greenway. All three of these bridges were designed to be erected in the constrained work space between existing highway bridges. The use of thru-girders was a design innovation introduced to eliminate pier substructures while preserving the required vertical clearance below the bridges. Substructures consist of driven piles, drilled shafts and secant pile walls. The aerial guideway section is supported on prestressed concrete I-beams and is part of the Metro station at the main terminal of Dulles Airport. During design development Ross attended weekly meetings with the contractor, and design review meetings with MWAA, WMATA, VDOT, and other stakeholders for each design package submission. Ross was also responsible for providing engineering support during construction of these bridges as well as over 11 miles of track retaining walls.

2. Route 606 Reconstruction and Widening Design-Build, Loudoun County, Virginia Dewberry Engineers Inc., Lead Bridge Engineer (8/2014 – 11/2017)

Responsibilities: Ross was responsible for leading the design for a pair of 257 foot long, two-span prestressed concrete beam bridges with semi-integral abutments. Foundations incorporated a combination of spread footings, drilled shafts, and steel piles. The project involved reconstructing and widening of Route 606, including elevating the roadway on a new bridge crossing over the emergency spillway of the existing Horsepen Dam which is owned by MWAA. The project included a substantial increase in the earthen dam structure and reconstruction of a portion of the principal spillway culvert to accommodate the widening of Route 606. Ross coordinated with the dam designers and hydraulic engineers in design of the bridge foundations and adjacent retaining walls, which were designed to serve as flood walls for the maximum probable flood event. During construction Ross oversaw the review of shop drawings and responses to RFI's, and worked with the contractor on design modifications to some bridge foundations for varying subsurface conditions encountered in the field. Ross also directed the preparation of as-built bridge plans for project records.

3. NB Route 29 over Tye River Bridge Replacement Design-Build, Amherst and Nelson Counties, Virginia Dewberry Engineers Inc., Lead Bridge Engineer (3/2010 – 3/2012)

Responsibilities: For this design-build project which replaced an aging and structurally deficient bridge carrying the NB lanes of Route 29 over the Tye River, Ross lead the structural design of a 645 foot long, five-span prestressed concrete beam bridge. The bridge is supported on 45 foot tall hammerhead piers with spread footings on rock in the floodplain. Ross coordinated the bridge design with the engineers performing the hydraulic and scour analyses, geotechnical engineering, and roadway/drainage/maintenance of traffic designs. During construction Ross was responsible for the review of shop drawings and responding to RFI's.

* On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.

h. For Key Personnel required to be on-site full-time for the duration of construction and for Quality Assurance Manager (QAM), provide a current list of assignments, role, and the anticipated duration of each assignment.

Not applicable for this position.

3.4.1(a) Work History Forms Lead Contractor

ATTACHMENT 3.4.1(a) LEAD CONTRACTOR - WORK HISTORY FORM (LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime design consulting firm responsible for the overall project design.	c. Contact information of the Client or Owner and their Project Manager who can verify Firm's	d. Contract Completion	e. Contract Completion Date	f. Contract Valu Original Contract	e (in thousands) Final or Estimated	g. Dollar Value of Work Performed by the Firm identified as the Lead
		responsibilities.	Date	(Actual or	Value	Contract Value	Contractor for this procurement.(in
			(Original)	Estimated)			thousands)
Name: Intercounty Connector, Contract 'C' (Design-Build) Location: Montgomery and Prince George's County, MD	Name: Dewberry Engineers Inc.	Name of Client/Owner: MD SHA Project Manager: Mark Coblentz Phone: (301) 586-9267 Email: mcoblentz@iccproject.com	November 2011	November 2011	\$513,988	\$528,654 * *Difference Due to Owner added scope	\$528,654

h. Narrative describing the Work Performed by the Firm identified as the Lead Contractor for this procurement. If the Offeror chooses to submit work completed by an affiliated or subsidiary company of the Lead Contractor, identify the full legal name of the affiliate or subsidiary and the role they will have on this Project, so the relevancy of that work can be considered accordingly. The Work History Form shall include only one singular project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be considered a single project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be claimed as a single project on this form. If the Offeror chooses to submit work performed as a Joint Venture or Partnership, identify how the Joint Venture or Partnership was structured and provide a description of the portion of the work performed only by the Offeror's firm.



SIMILARITIES TO I-95 NORTHBOUND RAPPAHANNOCK RIVER **CROSSING PROJECT**

- Design-Build Delivery
- Bridge Construction in Tight Work Space
- Adjacent Project Coordination
- Realizing Incentives
- Geotechnical Challenges
- Environmental Permitting and Strict Compliance Monitoring
- Storm Drainage and SWM Pond Facilities
- Utility Relocations
- MOT Operations Minimizing Congestion
- Teamed With Lead Designer -Dewberry
- Key & Value-Added Personnel:
 - ✓ Traffic Engineer: Jerry Mrykalo, PE, PTOE
 - ✓ Construction Manager: Greg Johannes

PROJECT NARRATIVE:

In December 2008, ICC Constructors, A Joint Venture, with Shirley Contracting Company, LLC as the Lead Contractor, and Dewberry Engineers Inc. as the Lead Designer, was awarded the \$513 million Contract 'C' of the Intercounty Connector. The overall 18 mile long Toll Road facility is located in Montgomery and Prince George's Counties, Maryland.

The Project was completed on a fast-track basis and required all work to be completed in under four years. The fixed completion date was critical to MDSHA in order to open the entire toll road for revenue service and meet commitments made to the public. Our Team met the contract goal of opening this segment on schedule.

PROJECT SCOPE:

- 3.8 miles of new 6-lane toll road on a new alignment
- 2 miles of collector-distributer lanes on I-95
- Three multi-level Interchanges I-95, Route 29, and Briggs Chaney Road
- 20 Bridges
- Retaining walls and noise barriers
- Temporary Traffic Control
- ITS & Tolling

SHIRLEY'S ROLE:

Contract 'C' was awarded to the IC3 Joint Venture led by Shirley Contracting Company, LLC and included Clark Construction Group, Trumbull Corporation and Facchina Construction. Shirley's role in the Project was the Sponsor of the Joint Venture. In this capacity, Shirley had overall responsibility and management of the complete scope of work including all design and engineering, utility relocations, permitting, quality control, construction, public outreach, and overall Project administration and management. Shirley was the primary point of contact with the Owner, and created and monitored the Project schedule.

EXPERIENCE COORDINATING WITH ADJACENT PROJECTS:

This Project was the 3rd of 4 total Projects procured to complete the ICC from near I-270 to I-95. To the west, this Contract tied to Contract B, and to the east to Contract D. This required close coordination throughout design and construction, particularly related to scheduling, stormwater management, utilities, and tolling infrastructure to ensure compatibility.

BRIDGE CONSTRUCTION IN A CONSTRAINED WORK SPACE

The ICC over Route 29 interchange consisted of 3-levels of bridge structures. Due to space limitations to maintain traffic on Route 29 and the size of the girders supporting the 2 flyover bridges, it was necessary to construct these upper level bridges first before the lower level bridges. This created extremely challenging work space limitations and detailed erection plans.

INNOVATIVE DESIGN SOLUTIONS AND CONSTRUCTION TECHNIOUES:

The success of this project was largely due to significant innovations in design development. Our Team developed several Alternative Technical Concepts to optimize the design and to reduce both the cost and duration of construction. These included:

- and reduce impacts to the traveling public.
- effectively reducing cost and time of construction.
- wetland area and eliminated bridges planned in RFP concept.

LIMITING IMPACTS TO THE TRAVELING PUBLIC:

A major priority was to minimize impacts to local businesses, residents and the surrounding communities that were impacted by this new facility. Our Team developed a comprehensive approach to meet this objective by sequencing the work to occur out of traffic and in off-peak hours, adjusting profiles to balance site earthwork activities and constructing temporary bridges crossing waterways to avoid "on-road" trucking, and establishing a Site Access Management Plan to designate specific access points, haul routes, staging areas, material and equipment storage areas, and restricted areas.

ON-TIME COMPLETION:

The project completed on-time by the original contract completion date of November 11, 2011.

SUCCESS IN TAKING & MANAGING CALCULATED RISKS & REALIZING INCENTIVES

A unique element was the incentive program for environmental compliance. On a weekly basis, representatives from the Owner and Contractor inspected and scored the entire Project for environmental compliance. These scores were compiled into a quarterly score and, if an 85 or higher was achieved, and incentive was awarded. The Shirley Team earned over \$4.7 million through this incentive program.

Optimized the RFP proposed interchange between MD 200 and I-95 through realignment and the incorporation of deep stabilization of unsuitable soils through the use of wick drains to effectively eliminate six complex bridge structures and simplify the interchange construction. Redesigned the interchange between MD200 and US-29 to eliminate 1 large fly-over structure

Optimized the pavement structure through the incorporation of a CBR-7 and incorporated Falling Weight Deflectometer testing into the OC program to verify achievement of the elevated standards. This significantly reduced the amount of asphalt required for the project,

Redesigned the I-95 Interchange to reduce ROW acquisition by 14 acres, reduce impacts to existing utilities and reduce the area of bridge deck by 320,000 SF.

Utilized wick drain ground improvement strategy to provide mainline ICC crossing of large

ATTACHMENT 3.4.1(a) LEAD CONTRACTOR - WORK HISTORY FORM (LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime design consulting firm responsible for the overall project design.	c. Contact information of the Client or Owner and their Project Manager who can verify Firm's	d. Contract Completion Date	e. Contract Completion Date	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Lead
		responsibilities.	(Original)	(Actual or	Original Contract	Final or Estimated	Contractor for this procurement.(in
				Estimated)	Value	Contract Value	thousands)
Name: I-64 Capacity Improvements - Segment I Design-Build Location: Newport News, VA	Name: Dewberry Engineers Inc.	Name of Client: VDOT Project Manager: Janet M. Hedrick, PE Phone: 757-956-3071 Email: Janet.Hedrick@vdot.virginia.gov	12/ 2017	12/2017	\$ 84,879	\$ 101,396 * * Difference due to Owner added scope	\$ 101,396

h. Narrative describing the Work Performed by the Firm identified as the Lead Contractor for this procurement. If the Offeror chooses to submit work completed by an affiliated or subsidiary and the role they will have on this Project, so the relevancy of that work can be considered accordingly. The Work History Form shall include only one singular project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be considered a single project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be claimed as a single project on this form. If the Offeror chooses to submit work performed as a Joint Venture or Partnership, identify how the Joint Venture or Partnership was structured and provide a description of the portion of the work performed only by the Offeror's firm.



SIMILARITIES TO **I-95 NORTHBOUND RAPPAHANNOCK RIVER CROSSING PROJECT**

- Design-Build Delivery
- **On-Time Completion**
- Bridge Construction in Tight Work • Space
- Adjacent Project Coordination
- Geotechnical Challenges
- Environmental Permitting and Strict **Compliance Monitoring**
- Storm Drainage and SWM Pond Facilities
- Utility Relocations
- MOT Operations minimizing Congestion
- Teamed With Lead Designer -Dewberry
- Key & Value-Added Personnel:
 - ✓ Sr. Project Manager: Robbie Roberts
 - Structural Engineer: Ross \checkmark Burhouse, PE
 - ✓ Structural Project Manager: Rob Coffee, PE
 - ✓ Traffic Engineer: Jerry Mrykalo, PE, PTOE

PROJECT NARRATIVE:

In March 2015, VDOT awarded Shirley Contracting Company LLC, (Shirley) the \$85M Interstate 64 (I-64) Capacity Improvements - Segment I Design-Build contract. Our Team was chosen because of our experience associated with construction of complex transportation projects on high volume, high speed roads, excellent safety record, and innovative approach to the design and construction aspects of the Project. The Project entailed the median widening of approximately 5.2-miles of I-64 in Newport News, VA; adding a new travel lane and full width shoulder in each direction on the interstate; replacement or widening of six bridges, including two bridges over CSXT Rail; and construction of nearly 2.5 miles of noise barrier wall

Utilizing our experiences working on similar interstate facilities, the Design Team developed an innovative Temporary Traffic Control (TTC) approach that allowed commencement of construction activities within six months of NTP by creating an Advanced TTC Plan Set. This strategy allowed for shoulder strengthening and median clearing within existing right-of-way to start while final roadway and bridge design elements were being completed. The Environmental Team worked closely with the permitting agencies to avoid work in jurisdictional areas while the final Joint Permit Application and mitigation measures were finalized.

Due to the significant deterioration of the existing pair of I-64 bridges over Industrial Park Drive and a CSXT spur line, the Shirley Team was able to enhance VDOT's RFP concept by choosing to replace the existing bridges with more efficient and new 2-span structures, rather than widen and rehabilitate them as called for in the RFP. The Team developed a new span arrangement that located both the pier and abutments outside of the CSXT right-of-way improving long term maintenance and avoidance of the railroad rightof-way. The existing bridges were completely demolished in phases and traffic was maintained at all times. The Project received the Design-Build Institute of America's National and Mid-Atlantic region Award of Merit recognizing the high quality and adherence to the Design-Build Project Delivery standards.

PROJECT SCOPE:

- Median Widening of 5.2-miles of Interstate 64 in each direction; •
- Demolition and Re-Construction of 2 new bridges over CSX Rail;
- Widening and Repairs of 4 existing bridges;
- Extensive Maintenance of Traffic Operations for over 100,000 VPD; •
- TMS, DMS, CCTV and Overhead Signage/installation; •
- Installation of 7 bio-retention and constructed wetland SWM facilities; •
- Utility relocation/installation;
- Installation of over 210,000 S.F. of Noise Barrier Wall; and, •
- Installation of over 15,000 LF of storm sewer including trenchless crossing.

SHIRLEY'S ROLE:

As the Design-Builder and Lead Contractor, Shirley was responsible for management and oversight of the entire Project, including design and engineering, environmental permitting, utility relocations and overall Project administration and construction management, including QA/QC. All construction work was performed on a heavily traveled roadway and all lane restrictions were coordinated by Shirley with VDOT to allow for public notifications of impacts to traffic. Shirley was responsible for creating and monitoring the schedule throughout design and construction.

EXPERIENCE COORDINATING WITH ADJACENT PROJECTS:

Midway through construction, VDOT awarded the next phase, the I-64 Widening - Segment II Project. Our Team worked closely to provide the Segment II project with design details, permitting limits, survey data, schedule updates, and lane closure prioritization to ensure project coordination and the safety of the traveling public.

BRIDGE CONSTRUCTION IN A CONSTRAINED WORKSPACE:

The design and construction of I-64 bridges over Industrial Park Drive required an initial inside median widening of both bridges in order to carry two lanes of I-64 in each direction with minimal shoulders. Work was constrained by not only the distance between the two bridges, but also by existing 135kV overhead transmission power lines that floated just 30 feet above the bridge deck surface. In the second phase of these bridges, demolition of the entire structure was performed under CSX flagman control and directly adjacent to live traffic on I-64 and controlled traffic underneath along Industrial Park Drive. The challenges were met as the bridges were completely demolished and replaced in just 19 months.

INNOVATIVE DESIGN SOLUTIONS AND CONSTRUCTION TECHNIQUES:

Although the RFP allowed for the widening and rehabilitation of the existing bridges over Industrial Park Drive and CSX Railroad, our Team developed plans which provided two new 2-span bridges in lieu of widening and repair of the existing 3-span bridges, resulting in shorter structures which will require less maintenance by VDOT. Geotechnically, the bridges presented unique challenges due to the extremely soft and yielding soils prone to settlement. The Team overcame these issues by use of several techniques including:

- and prior to permanent pile driving.

LIMITING IMPACTS TO THE TRAVELING PUBLIC:

The Team committed to provide shoulders during all phases of construction and full-length paved construction entrances. This allowed safe ingress and egress to the median construction work zones. Along with VDOT, VSP, and the City of Newport News, the Team developed an Incident Management Program that allowed for safe and effective removal of minor traffic accidents from the work zone, as well as quick response and remediation of roadway hazards such as potholes.

ON-TIME COMPLETION:

The project completed on-time by the original contract completion date of December 1, 2017.

SUCCESS IN TAKING & MANAGING CALCULATED RISKS & REALIZING INCENTIVES

Through the addition of scope enhancements proposed by VDOT such as the widening and strengthening of 8-miles of outside shoulder and the introduction of High Polymer Binder to the Asphalt Surface Mixes, the budget was increased by over 15%. Even with the increase in Project scope, the Shirley Team was able to complete the Project by the original Final Completion Date.

• MSE abutments designed for the anticipated settlement during and following construction; • Wick drains in the new abutment areas combined with surcharge and waiting periods; and Pile down-drag was avoided by use of an outer shell pile casing installed below problem soils

ATTACHMENT 3.4.1(a) LEAD CONTRACTOR - WORK HISTORY FORM (LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime design	c. Contact information of the Client or	d. Contract	e. Contract	f. Contract Value ((in thousands)	g. Dollar Value of Work
	consulting firm responsible for the	Owner and their Project Manager who can	Completion	Completion	Original Contract Value	Final or Estimated	Performed by the Firm identified
	overall project design.	verify Firm's responsibilities.	Date	Date		Contract Value	as the Lead Contractor for this
			(Original)	(Actual or			procurement.(in thousands)
				Estimated)			
Name: Dulles Greenway Capital Improvement Program Design- Build Location: Loudoun County, VA	Name: Dewberry Engineers Inc.	Name of Client/Owner: Toll Road Investors Partnership II (TRIP II) Project Manager: Don Cohrs Phone: 703-668-0032 Email: dcohrs@dullesgreenway.com	December 2007	December 2007	\$64,994	\$71,224 * *Difference Due to Owner added scope	\$71,224

h. Narrative describing the Work Performed by the Firm identified as the Lead Contractor for this procurement. If the Offeror chooses to submit work completed by an affiliated or subsidiary and the role they will have on this Project, so the relevancy of that work can be considered accordingly. The Work History Form shall include only one singular project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be considered a single project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be claimed as a single project on this form. If the Offeror chooses to submit work performed as a Joint Venture or Partnership, identify how the Joint Venture or Partnership was structured and provide a description of the portion of the work performed only by the Offeror's firm.



SIMILARITIES TO I-95 NORTHBOUND RAPPAHANNOCK RIVER CROSSING PROJECT

- Design-Build Delivery
- Bridge Construction in Tight Work Space
- Bridge Construction over Waterway
- Adjacent Project Coordination
- Geotechnical Challenges
- Environmental Permitting and Strict Compliance Monitoring
- Storm Drainage and SWM Pond Facilities
- Utility Relocations
- MOT Operations minimizing Congestion
- Teamed With Lead Designer -Dewberry

PROJECT NARRATIVE:

In March 2005 TRIP II awarded Shirley Contracting Company LLC, (Shirley) the \$65 million Dulles Greenway Design-Build Capital Improvement Program. Our team was chosen by TRIP II in large part because of our highly successful experience working together as a design-build team, excellent safety record, partnering approach, and experience integrating the various project elements. The project entailed designing and constructing the ultimate improvements to the Greenway as required by their contract with Virginia. The overall project was comprised of eight individual projects combined into a single design-build program. Shirley served as the Lead Contractor and Dewberry Engineers Inc. was the Lead Designer.

As part of the scope, two new bridges at Shreve Mill Road and Battlefield Parkway as well as the widened bridges of Route 606 and Route 772 (Ryan Road) were constructed over the Limited Access Dulles Greenway. Additionally, Shirley completely demolished and removed the existing Tolbert Street Bridge crossing over the Greenway adjacent to Leesburg Airport. In August 2006, TRIP II awarded Shirley a Change Order to design and construct improvements to the Route 772 Interchange. All work was coordinated with maintenance of traffic operations with critical elements being performed at night for safety and traffic operations considerations.

Elements of the construction scope required that all improvements be completed without any loss to the capacity of the toll facility, in a manner that maintained all existing access and traffic movements, and in a safe high-quality manner. With over 75,000 vehicles per day utilizing the facility, the team successfully achieved this goal.

PROJECT SCOPE:

- Widening the existing twin 660' 3-span 100' high bridges over Goose Creek
- 2-new interchanges at Battlefield Parkway and Shreve Mill Road •
- Widening of 14 bridges •
- Enhancements to an existing interchange at Route 606
- Widening of the mainline roadway from 4 to 6-lanes for a distance of 6.2 miles
- Extensive Maintenance of Traffic Operations •
- Environmental permitting
- Utility relocations •

SHIRLEY'S ROLE:

As the Lead Contractor, Shirley was responsible for all aspects of the design and construction of the Project, including: roadway, structures, toll facilities expansion, maintenance of traffic, environmental permitting, utility relocations and quality control. Shirley also handled stakeholder coordination and public outreach, as well as overall project management and coordination with other on-going projects within the corridor.

EXPERIENCE COORDINATING WITH ADJACENT PROJECTS:

The Team partnered with the Town of Leesburg and the local community to avoid impact to local soccer fields. A segment of the Town's right-of-way was acquired and was being used for little league soccer games. Shirley re-sequenced the CPM schedule to avoid impacting the area until after the completion of the soccer season, allowing the community time to find alternate playing fields for the next season. This schedule resequencing was completed at no cost to the Owner, without impacting the completion date and is an example our Team's willingness to partner with the Owner and local communities to maintain positive public perception.

BRIDGE CONSTRUCTION IN A CONSTRAINED WORK SPACE:

The existing width available to construct the widening of both east and westbound Greenway bridges over Goose Creek was approximately 60'. This was significantly reduced as construction progressed such that there was less than 2' to spare for the crane to maneuver to erect structural steel girders. This constricted space required detailed, wellcoordinated erection plans and included a causeway, 2 cranes, and deliveries and beam splices from the existing bridge decks.

INNOVATIVE DESIGN SOLUTIONS AND CONSTRUCTION TECHNIQUES:

As the Greenway is a toll facility, a key requirement of the Owner was that there could be no reduction in capacity for the 75,000+ vehicles per day utilizing the facility during construction. The Team developed a strategy to strengthen the outside shoulder at night, shift traffic to the outside, and set temporary concrete barrier along the median. This ensured that capacity was maintained and minimized lane closures.

LIMITING IMPACTS TO THE TRAVELING PUBLIC:

In addition to the shoulder strengthening strategy, our team developed detailed Traffic Management Plans that focused on maintaining lane widths and travel speeds and reduced the impact to traffic during interim construction phases.

ON-TIME COMPLETION:

2007.

SUCCESS IN TAKING & MANAGING CALCULATED RISKS & REALIZING INCENTIVES

Shirley opened the mainline widening of the Greenway six months ahead of schedule, and as part of the negotiation to add the full interchange at Route 772, Shirley committed to completing the entire Project by the original Contract completion date.

The project completed on-time by the original contract completion date of December,

3.4.1(b) Work History Forms Lead Designers

ATTACHMENT 3.4.1(b) **LEAD DESIGNER - WORK HISTORY FORM** (LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime/general contractor responsible for overall construction of the	c. Contact information of the Client and their Project Manager who can verify Firm's	d. Construction Contract Start Date	e. Construction Contract	f. Contract Value (in thousands)		g. Design Fee for the Work Performed by the Firm identified as the Lead
	project.	responsibilities.		Completion Date	Construction	Construction Contract	Designer for this procurement.(in
				(Actual or	Contract Value	Value (Actual or	thousands)
				Estimated)	(Original)	Estimated)	
Name: I-64 Capacity Improvements - Segment III Design-Build Location: York County, VA	Name: Shirley Contracting Company LLC	Name of Client: VDOT Project Manager: Janet M. Hedrick, PE Phone: 757-956-3071 Email: Janet.Hedrick@vdot.virginia.gov	12/2017	9/2021	\$ 178,282	\$182,767* * Difference due to Owner added scope	\$ 9,697

h. Narrative describing the Work Performed by the Firm identified as the Lead Designer for this procurement. Include the office location(s) where the design work was performed and whether the firm was the prime designer or a subconsultant. The Work History Form shall include only one singular project. Projects/contracts shall not be considered a single project. Projects/contracts shall not be claimed as a single project on this form.



SIMILARITIES TO I-95 NORTHBOUND RAPPAHANNOCK RIVER **CROSSING PROJECT**

- Design-Build Delivery
- Bridge Construction in Tight Work Space
- Adjacent Project Coordination
- Geotechnical Challenges
- Environmental Permitting and Strict Compliance Monitoring
- Storm Drainage and SWM Pond Facilities
- MOT Operations minimizing Congestion
- Teamed With Lead Contractor Shirley
- Key & Value-Added Personnel:
 - ✓ Project Manager: Robbie Roberts
- ✓ Structural Project Manager: Rob Coffee, PE
- ✓ Traffic Engineer: Jerry Mrykalo, PE, PTOE
- ✓ Environmental Scientist: Beth Patrizzi
- ✓ Structural Engineer: Ross Burhouse, PE

PROJECT NARRATIVE AND SCOPE:

In December 2017, Dewberry, as part of the Shirley-Dewberry design-build Team, was awarded the contract for the widening and reconstruction of more than 8 miles of I-64 in York County, Virginia. Specific elements of the project included:

- Widening of I-64 from four to 6-lanes for approximately 8.3 miles;
- Widening of I-64 bridges over Lakeshead Drive and The Colonial Parkway; •
- Demolition and replacement of the 900' bridges over Queens Creek;
- Interchange auxiliary lane improvements at the Route 199 and Route 143 Interchanges
- Stormwater management improvements;
- Drainage improvements and adequate outfall channel enhancements; •
- Noise barrier analysis, design, and construction; and •
- Public outreach

Design of these improvements were coordinated with the on-going I-64 Segment II project, which was under construction but not yet completed at the time of plan development and at the start of construction. Since the existing pavement was required to be completely demolished and replaced, the horizontal alignment of the eastbound and westbound lanes were adjusted where possible to minimize impacts to existing ITS facilities, adjacent properties, and environmentally sensitive areas including Queens Lake, Queens Creek, and the associated contributing channels and streams.

Dewberry's scope included:

- Updated field surveys;
- Wetland and stream delineations, environmental permitting, and permit monitoring; •
- Roadway engineering design;
- Bridge structural designs:
- Hydrologic and hydraulic analysis for Queens Creek;
- Drainage and stormwater management design;
- Traffic engineering design including an interchange traffic signal, signing & marking, ITS, and temporary traffic control design; and
- Public outreach

Advance temporary traffic control plans were developed and approved, allowing construction to start while final right-of-way and construction plans were completed and approved concurrent with initial construction activities. Extensive public outreach occurred for proposed noise barriers, coordination with the National Park Service for work over and on The Colonial Parkway, and with Camp Peary, a secure government property located immediately adjacent to westbound I-64.

DEWBERRY'S ROLE:

As the Lead Designer, Dewberry's Fairfax, Virginia and Richmond, Virginia offices were responsible for completion of all engineering identified above. Dewberry also completed all design field surveys, and environmental permitting and documentation. Dewberry oversaw sub-consultant services to complete updated aerial mapping, utility designations and test pits, geotechnical investigations and recommendations, noise analysis, and pipe video inspections.

EXPERIENCE COORDINATING WITH ADJACENT PROJECTS:

Design of the Segment III improvements were coordinated with the I-64 Capacity Improvements -Segment II project through regular communication to ensure the anticipated Segment II lane configurations were correctly reflected in our Segment III TTC plans. Additional coordination was completed with the National Park Service due to ongoing pavement repairs and replacement on The Colonial Parkway beneath the I-64 bridge improvements.

BRIDGE CONSTRUCTION IN A CONSTRAINED WORK SPACE:

Phasing of the I-64 bridge replacements over Queens Creek required development of multi-phased temporary traffic control plans and traffic "cross-overs" so that the new bridges could be completed in three stages while avoiding the secure Camp Peary property and while minimizing environmental and wetland impacts. A temporary causeway was implemented in the median of I-64 to facilitate construction, and temporary cross-over locations were located to accommodate the vertical profile adjustment required for both bridges. Bridge abutment and pier locations were designed to avoid conflicts with existing piers which would be removed in later construction stages.

INNOVATIVE DESIGN SOLUTIONS:

Dewberry utilized our experience and "lessons learned" from the I-64 Capacity Improvements -Segment I project (also designed by our Team) to implement several innovative design solutions. First, since the existing pavement would be reconstructed, we developed an alternate roadway alignment which minimized the amount of temporary shoulder strengthening. This minimized night time construction work, representing a safety improvement to our team's field staff and inspection staff, as well as reduced impacts to the travelling public. Additional innovative design solutions included developing profiles which minimized temporary wedge overlay required on the existing pavement to maintain pavement drainage, resulting in reduced construction costs. Finally, roadside ditch grading on the outsides of I-64 were designed to minimize excavation over the existing ITS conduit, allowing a majority of it to be salvaged and reused, thereby reducing construction costs.

LIMITING IMPACTS TO THE TRAVELING PUBLIC:

Our unique design concept minimized the amount of temporary shoulder strengthening required during the initial phase of construction. Since this work was required to be completed during nighttime operations, reducing this work improved the safety for workers by reducing night work and reduced nighttime impacts to the travelling public. The Queens Creek Bridge design and associated temporary traffic control configurations were also modified by our Team, resulting in one less stage of construction and one less temporary traffic switch which reduced impacts to the travelling public.

ON-TIME COMPLETION:

Design plans were completed on-time and construction is currently on-track for on-time completion.

SUCCESS IN TAKING & MANAGING CALCULATED RISKS & REALIZING INCENTIVES: Dewberry developed an Advance Temporary Traffic Control plan set to allow construction to start prior to approval of the final construction plans. Starting construction earlier, concurrent with design, will help enable us to achieve the Early Completion deadline of June 26, 2021 and earn the full "No Excuse" Incentive.

<u>ATTACHMENT 3.4.1(b)</u> <u>LEAD DESIGNER - WORK HISTORY FORM</u> (LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime/general contractor	c. Contact information of the Client and their	d. Construction	e. Construction			g. Design Fee for the Work Performed
	responsible for overall construction of the	Project Manager who can verify Firm's	Contract Start Date	Contract	f. Contract Va	lue (in thousands)	by the Firm identified as the Lead
	project.	responsibilities.		Completion Date	Construction	Construction Contract	Designer for this procurement.(in
				(Actual or	Contract Value	Value (Actual or	thousands)
				Estimated)	(Original)	Estimated)	
Name: I-95/Route 630	Name: Shirley Contracting Company,	Name of Client: VDOT				\$105,922 *	
Reconstruction and Widening	LLC	Project Manager: Bill Arel, PE	10/2016	7/2020	\$99.947		\$7 919
Design-Build		Phone: 540-814-0327	10/2010	112020	φ, σ,	*Difference due to	<i>ψ1</i> 3 <i>2</i> 1 <i>2</i>
Location: Stafford County, VA		Email: William.Arel@vdot.virginia.gov				Owner added scope	

h. Narrative describing the Work Performed by the Firm identified as the Lead Designer for this procurement. Include the office location(s) where the design work was performed and whether the firm was the prime designer or a subconsultant. The Work History Form shall include only one singular project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be claimed as a single project on this form.



SIMILARITIES TO I-95 NORTHBOUND RAPPAHANNOCK RIVER CROSSING PROJECT

- Design-Build Delivery
- Bridge Construction in Tight Work Space
- Work on I-95 Corridor
- Coordination with Fred Ex Project
- Geotechnical Challenges
- Environmental Permitting and Strict Compliance Monitoring
- Storm Drainage and SWM Pond Facilities
- Utility Relocations
- MOT Operations minimizing Congestion
- Teamed With Lead Contractor Shirley
- Key & Value-Added Personnel:
 - ✓ Quality Assurance Manager: Scott Shropshire, PE
 - ✓ Construction Manager: Greg Johannes
 - ✓ Structural Project Manager: Rob Coffee, PE
 - ✓ Lead Traffic Engineer: Jerry Mrykalo, PE, PTOE
 - ✓ Environmental Scientist: Beth Patrizzi

PROJECT NARRATIVE AND SCOPE:

In 2016, Dewberry, as part of the Shirley-Dewberry design-build Team, was awarded the contract to make extensive improvements to Route 630 in Stafford County including:

- Widening of Route 630 west of I-95 for approximately 2 miles;
- Realignment of Route 630 and improvement to a 4-lane divided typical section for approximately 1 mile east of I-95;
- New diverging diamond interchange (DDI) at Route 630 and I-95;
- Realignment and widening of multiple intersecting local roads; and
- Two new park and ride facilities providing more than 1,000 parking spaces and bus access

Design and construction was separated into two projects (Widening project and Interchange project) based on the funding sources and prior project plan development. Dewberry's scope included:

- Field surveys;
- Wetland and stream delineations, environmental permitting, and permit monitoring;
- Roadway widening, realignment and interchange geometric design;
- Bridge and retaining wall structural designs;
- Drainage and stormwater management design;
- Traffic engineering design including traffic signals, signing & marking, ITS, and temporary traffic control design;
- Public outreach; and
- Oversight of all engineering subconsultant services

The new interchange at I-95 included realignment of Route 630 to the south of the existing diamond interchange. In addition to the new DDI interchange, Route 630 was realigned to the south and improved to a 4-lane divided roadway, intersecting with Route 1 at Hospital Center Drive. Multiple local roads were realigned to accommodate the new alignment of Route 630 and the DDI. During design of the Interchange, VDOT revised the scope to include a new bridge to accommodate access to the future I-95 HOT lanes. A plan revision was developed to adjust the profile of the entrance ramp to northbound I-95, and Dewberry completed the design for the new ramp bridge over existing Courthouse Road. Extensive coordination with adjacent property owners has continued because the area surrounding the interchange and Route 630 is rapidly being redeveloped. Several additional entrances, turn lanes, and secondary road improvements have been added to the scope of the project based on this continued coordination.

DEWBERRY'S ROLE:

As the Lead Designer, Dewberry's Fairfax, Virginia office was responsible for completion of all engineering services. Dewberry also completed all design field surveys, and environmental permitting and documentation. Dewberry oversaw sub-consultant services to complete updated aerial mapping, utility designations and test pits, geotechnical investigations and recommendations, noise analysis, pipe video inspections, and development of public graphics and displays for public outreach efforts.

EXPERIENCE COORDINATING WITH ADJACENT PROJECTS:

Following design approval, plans were modified at the direction of VDOT to accommodate a new access point to the future I-95 HOT lane extension (Fred Ex). Plans were revised to incorporate a new interchange ramp bridge over existing Courthouse Road to allow for future conversion to a new access ramp. Plans and design information has since been shared with the Fred Ex project team, and coordination is ongoing between projects.

BRIDGE CONSTRUCTION IN A CONSTRAINED WORK SPACE:

The new DDI bridges over I-95 were located in a very tight work space, located immediately south of the existing interchange underpass bridges and within the limits of the existing interchange ramps. Construction of the parallel bridges occurred over and immediately adjacent to continuously live traffic. Dewberry developed designs for temporary diversions for two interchange ramps so that they would be located under the future bridge and open to traffic at all times, and the abutment designs were developed while considering the temporary ramp configurations as well as the permanent typical section of northbound and southbound I-95.

INNOVATIVE DESIGN SOLUTIONS:

One of the most critical elements of the project was the public outreach necessary to explain the operation of the DDI upon opening, especially to the new high school drivers attending Colonial Forge High School along the Widening project limits. In order to explain the operation of a DDI, our Team developed a movie trailer, which will be played in movie theaters in Fredericksburg prior to the opening of the DDI. Dewberry developed animations/drive-thru's of the DDI and coordinated with our subconsultant to create two 30 second movie "trailers" to show how the DDI will operate once completed. The temporary traffic control plans were also developed so that the interchange could be opened as one major traffic pattern change, as opposed to a phased opening which has caused challenges elsewhere within the Commonwealth. By developing temporary ramp alignments and profiles, all interchange ramps and were able to be constructed simultaneously so that the interchange opening could also be completed simultaneously.

LIMITING IMPACTS TO THE TRAVELING PUBLIC:

As described above, all existing traffic and ramp movements were maintained during construction of the new interchange and temporary ramps were designed to maintain movements while also allowing for the complete, simultaneous construction of all interchange ramps to allow for a single interchange opening. Impacts were also minimized by phasing the construction of the park & ride facilities, and interim opening of temporary lots resulted in increased parking capacity during construction.

ON-TIME COMPLETION:

Design plans were completed on-time based on original plan deliverable schedules, and construction is currently on-track for on-time completion.

SUCCESS IN TAKING & MANAGING CALCULATED RISKS & REALIZING INCENTIVES:

Dewberry developed and received plan approval on schedule with our original proposal dates which will help enable our team to achieve the early completion incentive for the entire project.

ATTACHMENT 3.4.1(b) **LEAD DESIGNER - WORK HISTORY FORM** (LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime/general contractor responsible for overall construction of the project.	c. Contact information of the Client and their Project Manager who can verify Firm's responsibilities.	d. Construction Contract Start Date	e. Construction Contract Completion Date (Actual or Estimated)	f. Contract Va Construction Contract Value (Original)	lue (in thousands) Construction Contract Value (Actual or Estimated)	g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement.(in thousands)
Name: Dulles Greenway Capital Improvements Design-Build Location: Loudoun County, VA	Name: Shirley Contracting Company LLC	Name of Client: Toll Road Investors Partnership II (TRIP II) Project Manager: Don Cohrs, COO Phone: 703-668-0032 Email: dcohrs@dullesgreenway.com	3/2005	12/2007	\$ 64,994	\$ 71,224 * * Difference due to Owner added scope	\$ 8,653

h. Narrative describing the Work Performed by the Firm identified as the Lead Designer for this procurement. Include the office location(s) where the design work was performed and whether the firm was the prime designer or a subconsultant. The Work History Form shall include only one singular project. Projects/contracts with multiple phases, segments, elements (projects), and/or contracts shall not be claimed as a single project on this form.



SIMILARITIES TO I-95 NORTHBOUND RAPPAHANNOCK RIVER CROSSING PROJECT

- Design-Build Delivery
- Bridge Construction in Tight Work Space and over Scenic River (Goose Creek)
- Freeway Widening Design
- Hydraulic & Hydrologic Analysis
- Scour Analysis
- Environmental Permitting and Strict Compliance Monitoring
- Storm Drainage Modifications
- MOT Operations minimizing Congestion
- Teamed With Lead Contractor Shirley
- Extensive Third Party Coordination

PROJECT NARRATIVE AND SCOPE:

In 2005, the Shirley-Dewberry Design-Build Team began work on TRIP II's Dulles Greenway Capital Improvement Program to complete many of the "ultimate" improvements required in their Comprehensive Agreement with VDOT. These improvements included:

- Over 6 miles of median widening of the Greenway from 4-lanes to 6-lanes including bridge widenings over Claiborne Parkway, Broadlands Boulevard, Sycolin Creek, and Sycolin Tributary:
- Mainline toll plaza expansion from 10 to 18 lanes;
- Modifications to the Route 606 and Route 772 Interchanges;
- Construction of new interchanges at Battlefield Parkway and Shreve Mill Road; and
- Widening of the parallel, 660' three-span bridges over Goose Creek

This final element of the project – the widening of the bridges over Goose Creek – required the widening of the existing bridges to accommodate an additional lane in each direction. Each bridge was approximately 100' above Goose Creek, a state scenic river, and required extensive environmental coordination and approvals prior to construction. Pier locations were identified to match the existing span arrangements, and temporary cofferdams were employed to allow for construction of the pier foundations while minimizing impacts to the creek. Access to the creek was obtained by using the original access paths from the Dulles Greenway in order to avoid right-ofway and easement acquisition. Construction of the widening was extremely constrained due to the narrow median width between the existing bridges. Widening of the bridges was coordinated with the adjacent roadway widening, ultimately resulting in a 6-lane typical section between the mainline toll plaza (near Dulles International Airport) and Leesburg. The overall project scope included:

- Field surveys;
- Wetland and stream delineations, environmental permitting, and permit monitoring;
- Roadway widening geometric design; •
- Bridge structural design;
- Hydraulic & hydrologic analysis (H&HA) and scour analysis;
- Roadway and bridge structure drainage design;
- Traffic engineering design signing & marking and temporary traffic control design;
- Oversight of all engineering subconsultant services; and
- Third party stakeholder coordination

Since the Dulles Greenway is a privately owned and maintained toll road, extensive coordination was completed with the owner in order to minimize impacts to the travelling public to ensure toll revenues weren't impacted during construction.

DEWBERRY'S ROLE:

As the Lead Designer, Dewberry's Fairfax, Virginia office was responsible for all engineering design services; environmental permitting and monitoring; construction support activities; oversight of subconsultants; coordination with the owner; and coordination with multiple third party stakeholders.

EXPERIENCE COORDINATING WITH ADJACENT PROJECTS:

The Goose Creek Bridge widening was coordinated with the mainline roadway widening, which was completed simultaneously but in accordance with a separately approved roadway construction package. Design of the improvements were coordinated so that all of the unique project elements could be completed within the contract timeline and in an effort to increase revenue on the toll road while minimizing delays to the travelling public. As part of this single design-build contract, other elements of the project required coordination with ongoing adjacent developments, including work within the Town of Leesburg (at the west end) and on Dulles International Airport property (at the east end).

BRIDGE CONSTRUCTION IN A CONSTRAINED WORK SPACE:

The focal point of the contract was the widening of the parallel bridges over Goose Creek, which extended approximately 100' above the creek water surface and included a center span of 300'. Extensive coordination occurred between Dewberry and Shirley to ensure bridge girder erection could be completed while minimizing impacts to traffic and not damaging the existing bridges due to the extremely narrow ultimate median width (less than 40').

INNOVATIVE DESIGN SOLUTIONS:

Since all of the mainline improvements were completed in the median, no right-of-way or easement acquisitions were required for the mainline widening, including the widening of Goose Creek. Access to construct the bridge foundation elements was provided via the original construction access routes, helping to accelerate construction by avoiding acquisition of additional right-of-way or easements.

LIMITING IMPACTS TO THE TRAVELING PUBLIC:

Limiting impacts to the travelling public was a significant concern to TRIP II since it could have impacted tolling revenue on the private facility. Due to extensive coordination and development of comprehensive temporary traffic control plans, tolling revenue was not impacted. During construction all existing travel lanes were maintained, safely moving over 80,000 vehicles per day within the corridor.

ON-TIME COMPLETION:

All improvements included in the contract were completed on-time, including the Route 772 Interchange improvements which were added to the contract without a time extension.

SUCCESS IN TAKING & MANAGING CALCULATED RISKS & REALIZING INCENTIVES:

There were no incentives tied to completion of this project. However, Dewberry did develop independent plan sets for each element of the project in an accelerated and overlapping timeline, allowing each of the improvements to be constructed simultaneously and completed on-time.