

Original

JULY 2, 2019

Statement of 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



The Lane Construction Corporation
in association with Rinker Design Associates, PC



July 2, 2019

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

RE: I-95 Northbound Rappahannock River Crossing Project
State Project No.: 0095-111-270
Federal Project No.: NHP-095-2(531)
Contract ID Number: C00105510DB106

Dear Mr. Shah:

The Lane Construction Corporation (LANE) is pleased to submit this Statement of Qualifications for the above referenced project to Virginia Department of Transportation (VDOT). LANE is a nationally-ranked contractor specializing in complicated, high quality road and bridge construction. LANE has been established in Virginia continually since 1971. We enjoy a long and successful history in the Commonwealth having completed more than 200 projects worth in excess of \$3.0B.

As a leader in the Design-Build (D-B) method nationally-ranked as one of the Top Design-Build Firms by *Engineering News-Record*, LANE has constructed more than 80 D-B projects worth over \$13B during the past 20 years. LANE's teaming and leadership experience enables us to deliver the innovative and technically sound results that VDOT and Virginia residents expect and deserve.

LANE, as the Offeror and Lead Contractor, will be the overall authority on the project. We have teamed with **Rinker Design Associates, PC (RDA)** as the Lead Designer. LANE and RDA have a successful D-B working relationship and recently delivered VDOT's I-66/Route 15 Interchange Reconstruction D-B in Prince William County (DBIA 2018 National Project of the Year Award winner) and Route 29 Solutions D-B in Albemarle County (ACEC/VA Pinnacle Award for Engineering Excellence and Grand Award for Engineering Excellence). As evidenced in our work histories, we provide VDOT a highly reputable team that has completed numerous projects on time, on budget, and similar in size and scope to the I-95 Northbound Rappahannock River Crossing D-B project.

LANE and RDA, in conjunction with additional project-specific design and construction firms included on our Team, are experienced with VDOT processes and procedures and are currently providing design and construction for the I-66 Eastbound Widening Inside the Beltway D-B project. We are confident in our team structure and experience and have elaborated on our distinctive qualifications in the subsequent sections. We have assembled a team of highly experienced and committed key personnel and staff to successfully meet or exceed VDOT's requirements for safety, quality, functionality, and on-time delivery of this Project.

3.2.2 Offeror's Point of Contact Information: Mr. Ali Alkouraihi is the Point of Contact for the LANE Team for all matters associated with this qualifications submittal.

Ali Alkouraihi, Pursuit Manager
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3.2.3 Offeror's Principal Officer Information: Mr. Robert E. Alger is a Principal Officer of LANE.

Robert E. Alger, President & Chief Executive Officer

90 Fieldstone Court

Cheshire, CT 06410

Tel: (203) 235-3351 Fax: (203) 237-4260

Email: REAlger@laneconstruct.com

3.2.4 Offeror's Corporate Structure: LANE was founded in 1890 and was incorporated in the State of Connecticut on April 5, 1902. LANE will undertake the financial responsibility for the project and has no known liability limitations. LANE's pre-qualification status/capabilities with VDOT are well in excess of the requirements of this project. The co-sureties will furnish a single 100% performance bond and a single 100% payment bond.

3.2.5 Lead Contractor and Lead Designer: The full legal name of the Offeror is: **The Lane Construction Corporation**. LANE will serve as the prime/general contractor responsible for overall construction of the project and will serve as the legal entity with whom VDOT will execute the contract. The full legal name of the Lead Designer is: **Rinker Design and Associates, PC**. RDA will serve as the lead design firm responsible for the overall design of this Project under contract to LANE.

3.2.6 Affiliated/Subsidiary Companies: A complete list of our respective companies' affiliates and subsidiary companies may be found in the Appendix.

3.2.7 Debarment Forms: Certifications for Debarment for both Primary and Lower Tier Covered Transactions have been completed and executed for the Offeror and all subconsultants, subcontractors, and other entities as identified as members of the LANE Team and may be found in the Appendix.

3.2.8 Offeror's VDOT Prequalification Evidence: Evidence of VDOT's Prequalification (*L002/Active*) is included in the Appendix and verifies that LANE is prequalified for this SOQ submission.

3.2.9 Letter of Surety: A surety letter from the bonding companies is included in the Appendix, confirming their willingness to provide all bonds for this project.

3.2.10 SCC/DPOR Information and Evidence: The matrix in the Appendix delineates the respective state registrations and licensures of the LANE Team. The Offeror and all team members are eligible at the time of the SOQ submittal, under the law and relevant regulations, to offer and to provide any services proposed or related to the project. Respective copies of licenses may be found in the Appendix.

3.2.11 DBE Statement: LANE supports the Disadvantaged Business Enterprise (DBE) program and is committed to meeting the 12% goal for the design and construction of this project utilizing Virginia certified DBE companies.

Our team has performed a thorough site investigation, studied the project issues, and quantified the risks associated with this work. Through our proven performance, our team will deliver this project safely, on time and within budget. We appreciate the opportunity to present our qualifications and look forward to working with the VDOT on this important project.

Respectfully submitted,



Robert E. Alger

President & Chief Executive Officer


The Lane Construction Corporation



Section 3.3

Offeror’s Team Structure

LANE has carefully chosen a group of the most highly skilled team members, both firms and individuals, to create a team structure that effectively utilizes the Design-Build (D-B) process and capitalizes on the strongest attributes of each team member’s respective capabilities. LANE’s role on the I-95 Northbound Rappahannock River Crossing (I-95 NB RRC) project will include overall management, supervising construction, and self-performing major work elements. We have selected RDA as the Lead Designer. LANE and RDA enjoy a successful D-B working relationship; most recently delivering VDOT’s I-66/Route 15 Interchange Reconstruction D-B in Prince William County (*DBIA 2018 National Project of the Year Award winner*) and the Route 29 Solutions D-B in Albemarle County (*ACEC/VA Pinnacle Award for Engineering Excellence & Grand Award for Engineering Excellence*). Currently, we are under contract for the design and construction for VDOT’s I-66 Eastbound Widening Inside the Beltway D-B project. Together, we are the foundation of the LANE Team.

 **The Lane Construction Corporation (LANE)** will serve as Lead Contractor of the D-B Team for the I-95 NB RRC project. Consistently ranked as one of *Engineering News-Record’s (ENR) Top Highway Contractors* (currently 7th Top Transportation Contractor), LANE has built more than 17,000 miles of highways and 250 bridges in its nearly 130-year history. We provide reliable and long-lasting infrastructure that seamlessly moves people throughout the country. Our proven heavy civil experience in bridge and roadway construction, which includes **more than 80 D-B projects** totaling more than \$13B in construction over the past 20 years, demonstrates LANE’s ability to tackle the region’s most challenging infrastructure projects.



Rinker Design Associates, PC (RDA), as Lead Designer, will provide overall project management for all design activities. RDA is a Virginia-based firm with over 140 employees and offices in Manassas, Fredericksburg, Richmond, and Virginia Beach. They are an award-winning, Virginia-certified SWaM (DSBSD Certification #652784) and have served as the lead designer on 14 D-B projects in the past 10 years valued at over \$440M and supported another six over the same timeframe. RDA will lead the design effort for all aspects of the project and will be responsible for the design QA/QC.

Subconsultants

Additionally, under subcontract to the LANE Team are the following highly qualified subconsultants:

- WSP USA Inc. (Structural, Environmental, ITS, and other design support services)
- CES Consulting LLC (Quality Assurance Management) (DBE)
- DMY Engineering Consultants Inc. (Geotechnical and QC Lab) (DBE)
- Froehling & Robertson, Inc. (QA Lab)

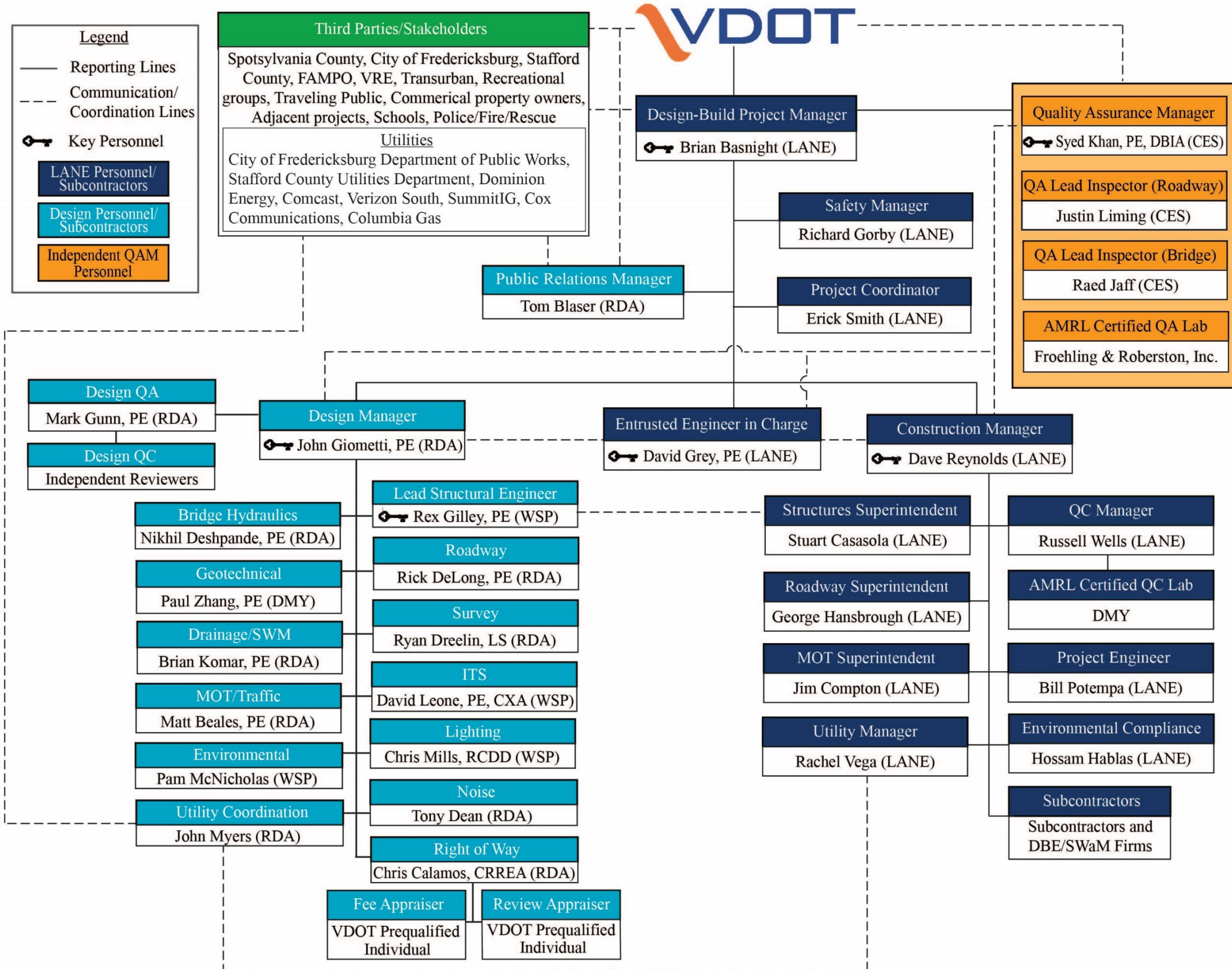
3.3.1 Qualifications of Key Personnel

Our team’s proposed Key Personnel have noteworthy experience on transportation projects similar to the roles they will serve on the I-95 NB RRC project. Information regarding their experience can be found in Attachment 3.3.1 in the Appendix. Our Key Personnel will be employed full-time by their respective firms as shown below on the Organization Chart.

Key Personnel/Role	Yrs Exp.	D-B Exp.	VDOT Exp.	Complex MOT	Bridge Exp.	Interstate Exp.
Brian Basnight / Design-Build Project Manager (LANE)	29	★	★	★	★	★
David Grey, PE / Entrusted Engineer in Charge (LANE)	40	★		★	★	★
Syed Khan, PE, DBIA / Quality Assurance Manager (CES)	36	★	★	★	★	★
John Giometti, PE / Design Manager (RDA)	31	★	★	★	★	★
Dave Reynolds / Construction Manager (LANE)	40	★	★	★	★	★
Rex Gilley, PE/ Lead Structural Engineer (WSP)	29	★	★	★	★	★

3.3.2 Organizational Chart

The LANE Team’s organization has a straightforward chain of command, with individual tasks, responsibilities, and functional relationships clearly identified on the organizational chart. The team proposed will remain on the LANE Team for the duration of the procurement process and for the duration of the D-B Contract.



Reporting Relationships of Key Personnel

Design-Build Project Manager (DBPM), Brian Basnight (LANE) will report to VDOT and serve as the Project's central point of contact. He will facilitate communication among VDOT, team partners, and adjacent projects, monitor design efforts to proactively eliminate potential constructability issues prior to breaking ground, and delegate resources to deliver the project on time. It will be his responsibility to work with the LANE Team to ensure that the design complies with the Owner's specifications. His management from design through construction will include weekly design and construction meetings to coordinate how the LANE Team will construct the project, paying close attention to safety, cost, and schedule. Additionally, he will be responsible for construction quality management, contract administration, and coordination of public outreach and public meetings and answering relative questions/inquiries.

Added Value: Mr. Basnight brings 29 years of experience in the construction industry. He has extensive D-B experience on a wide variety of highway, bridge, and roadway projects ranging in size from \$15M to \$726M throughout Virginia including the 95 Express Lanes D-B project (included in *Work Histories*). He is currently serving as the DBPM on the \$336M 395 Express Lanes D-B project.

Entrusted Engineer In Charge (EIC), David Grey, PE (LANE) reports directly to the DBPM and will have direct lines of communication with the DM, CM, and QAM. He is integrated among the project team and will accept full professional responsibility for engineering decisions relating to the final product. Mr. Grey will answer questions/inquiries relevant to engineering decisions regarding design and/or construction. He is a registered Professional Engineer in Virginia.

Added Value: Mr. Grey has been instrumental to LANE's D-B success throughout North America. His D-B experience includes serving as Project Manager on over \$550M alternative delivery projects and best value contracts, including the I-85 over Yadkin River Bridge D-B project (included in *Work Histories*). He has also served in various other capacities on over \$3B worth of alternative delivery projects for LANE. Substantiating his engineering expertise and his ability to fully integrate design and

construction, Mr. Grey served as VP of Transportation for HDR, an international design firm earlier in his career.

Quality Assurance Manager, Syed Khan, PE, DBIA (CES) will report directly to the DBPM on all quality issues. Mr. Khan is independent from the D-B team and will reject and immediately address any item of work failing to meet minimum standards. Construction personnel have no authority over the QA inspection staff. Mr. Khan will keep VDOT informed on the status of quality of construction and issues/solutions through weekly reports and progress meetings. As QAM, Mr. Khan holds the authority to suspend work if quality issues warrant. The QA Inspectors and QA lab will report directly to Mr. Khan.

Added Value: Mr. Khan has 31 years of heavy civil construction experience with emphasis on QA/QC. His recent experience in NOVA includes: I-66 Spot 2 Widening, I-95 HOV widening, and the 395 Express Lanes D-B. Mr. Khan is currently serving as QAM on the I-66 Eastbound Widening Inside the Beltway D-B project with LANE.

Design Manager, John Giometti, PE (RDA) will report directly to the DBPM. Mr. Giometti will maintain close communication with the DBPM and ensure the Project is designed in accordance with the requirements of the contract documents. He will be responsible for coordinating all design disciplines and ensuring the overall project design conforms to the specifications; all design disciplines will report directly to Mr. Giometti. He will provide VDOT with design plans for review and approval to confirm that the design work is constructible and complies with the requirements of the Contract Documents. He will also be responsible for establishing oversight of the design QA/QC program for each discipline.

Added Value: Mr. Giometti brings 31 years of experience in designing and managing major transportation projects. He previously served as the District Location and Design Engineer in VDOT's Culpeper District. He is currently the Assistant Design Manager for I-66 Eastbound Widening Inside the Beltway D-B project with LANE (design work will complete this year).

Construction Manager, Dave Reynolds (LANE) will report directly to the DBPM. His daily duties include: safety, coordination of all project personnel and construction activities including subcontractors, and execution of the construction QC program. He holds ultimate responsibility for managing the project's schedule with the Project Engineer. He will hold daily meetings with the QA Lead Inspector to discuss all ongoing construction activities. He will also review all QC reports and lab results. Any item that is not conforming to the specifications will be addressed immediately with corrective actions mandated that same day. Mr. Reynolds will hold the Virginia Department of Environmental Quality (DEQ) Responsible Land Disturber (RLD) Certification and the VDOT Erosion and Sediment Control Contractor Certification (ESCCC) prior to commencement of construction.

Added Value: Mr. Reynolds is a 40-year veteran in the construction industry and has served as Construction Manager on numerous roadway widening and bridge projects throughout Virginia. He is currently serving as the Construction Manager on the complex 395 Express Lanes D-B project, where he is the CM responsible for the on-site construction operations and progress.

Lead Structural Engineer, Rex Gilley, PE (WSP) reports directly to the DM. Mr. Gilley is responsible for structural design of the bridges and retaining walls. He will review, verify, and modify designs, if necessary, based on field conditions and construction activities related to dismantling and removing portions of existing structures, installing foundation structures, handling and erecting bridge girders, and making superstructure and substructure repairs. Mr. Gilley is a registered, licensed, Professional Engineer in the Commonwealth of Virginia.

Added Value: Mr. Gilley has 29 years of experience in design and management of structures and bridges. He brings the experience and lessons learned of several D-B projects as well as interstate widenings and long bridge design.

Narrative of Other Functional Relationships

The LANE Team also includes the following recognized specialists whom we deem critical to this Project, albeit non-key personnel as defined by the RFQ. Their qualifications are provided below.

Erick Smith, Project Coordinator: Mr. Smith brings over 20 years of experience in construction and design coordination. He will coordinate design progress, schedule, and staffing needs within the project team throughout the design and construction phases, both internal and external to our project, to ensure that all issues are addressed and that all specialty teams and adjacent projects are integrated when needed. Mr. Smith has extensive experience on a wide variety of highway projects, both greenfield and reconstructs. He has managed design coordination, constructability, project management, utility relocation, stakeholder coordination, acquiring ROW, and owner coordination as Project Manager. Additionally, Mr. Smith recently achieved the ARTBA Safety Certified Transportation Project Professional Certification.

Tom Blaser, Public Relations Manager: Mr. Blaser has 37 years of experience in the industry. Prior to joining RDA, Mr. Blaser was the Director of Transportation with Prince William County. Having served the County in this and other roles, he has a unique understanding and appreciation of the public's position and concerns on transportation issues as well as strategies to gain trust and confidence for acceptance and success.

Design and Construction Team Interaction

Design and construction integration is a critical element of a major, multidisciplinary project. The LANE Team ascribes to the DBIA paradigm that "integrated development of the design and construction program is the cornerstone of D-B delivery and that this methodology optimizes opportunities for collective excellence." Our design and construction teams will interface throughout the life of the Project.

Mr. Basnight, DBPM, will be involved in all project development and construction processes to ensure overall quality management, adherence to the contract, and allocation of appropriate resources to meet the project schedule. Furthermore, he will guide the Team in important Public Outreach efforts that will be critical in mitigating citizens' concerns.

To ensure successful project delivery, the LANE Team will schedule weekly discipline coordination meetings throughout Project execution. These focused meetings will be coordinated through Mr. Basnight, the DBPM, with oversight from the EIC, Mr. Grey and Project Coordinator, Mr. Smith will

serve as a conduit for disseminating project-critical information and will be the central point of decision-making and communication among all involved in the Project. These routine, open forums of discussion among the LANE Team will address plan elements and clearly define project criteria. VDOT will be invited for over-the-shoulder reviews and coordination to ensure that their intentions are being

met, address corridor-wide safety and constructability issues before they become schedule-critical, and provide consistency in design.

Through this approach, our Team has created strong and trusted relationships with our D-B clients as well as their third-party stakeholders.

Design and Construction Integration Solutions	Benefit
Critical input in development of work packaging and D-B strategy	Incorporates construction expertise to develop efficient construction sequence and schedule logic
Advising design team on specific construction elements required for the project	Enables tailoring of design / construction documentation to construction delivery method
Providing input on construction means and methods to design packages	Ensures practical designs that support planned construction approaches in a safe and economical manner
Constructability, operability and pricing reviews of design documents	Ensures design documents are implementable and achieve the intended purpose
RFI process to clarify details of the construction work	Detailed and trackable process to ensure timely resolution of clarifications
Providing design engineers on-site, as needed	Provides assistance in clarification of design requirements and responding to field inquiries
Providing support due to field conditions requiring design changes	Ensures consistency of design changes with compliant to the intent of the original design
Compiling final as-built drawings	Provides correlation between original design, design changes, and as-built construction

3.4 Experience of Offeror's Team

Section 3.4

Experience of Offeror’s Team



LANE and RDA have worked together on projects throughout Central and Northern Virginia. As a team, we have received numerous accolades and awards that further demonstrate the quality and benefits our Team will bring to VDOT.



The I-95 NB RRC Project will benefit from a cohesive and experienced contractor/design D-B team with an integrated and collaborative work history. LANE and RDA are among Virginia’s top-ranked firms in their respective disciplines. Individually, our firms have self-performed some of Virginia’s most important transportation infrastructure and achieved a widely recognized level of success by meeting or exceeding project goals, managing budget and schedule risk, and allocating necessary resources to mitigate risks before they become schedule-critical. Together, we capitalize on our abilities to effectively and efficiently innovate design and construction techniques and solutions, cost-effective risk management tactics, accelerated schedule capabilities, design and construction quality, and safety for the public and workers. Establishing this team for the I-95 NB RRC project unifies the abilities of each to perform in a complimentary manner based on our past performance together. LANE and RDA’s depth of experience reinforces the benefit of capitalizing on firms that have already enjoyed a successful, productive working relationship with VDOT, third-party stakeholders, and adjacent project contractors.

LANE and RDA Team Testimonials:

Route 29 Solutions, Charlottesville, VA

“We do some pretty complex projects in Virginia, and this one is right up there. You had 103-day window to shut down the intersection. People said we couldn’t get it done in 103 days and they were right. We did it in 57 days. The Lane-Corman team did everything we asked and more to deliver this project.” – *[former] VDOT Commissioner Charles Kilpatrick*

“This project brought something that you cannot pay for: Good will... This should become the default model for community engagement.” -*Liz Palmer, Chair, Albemarle County, Board of Supervisors*

“The speed and professionalism of Lane-Corman and the VDOT team was impressive... It’s really amazing how good of a job they did – no question about it.” – *Member, Project Delivery Advisory Panel*



I-66/Route 15 Interchange Reconstruction, Prince William County, VA

“This year’s National Design-Build Project/Team Award winners prove beyond a shadow of a doubt that design-build is changing the way America builds and delivers impressive results in communities from coast to coast,” – *Lisa Washington, CAE, DBIA executive director/CEO.*

Winner of the following awards:

- 2018 Design-Build Institute of America’s (DBIA) Project of the Year Award
- 2018 DBIA National Award – Excellence
- 2018 DBIA National Award – Merit in Transportation
- 2017 HCCA Excellence in Infrastructure Award
- 2018 VTCA Transportation Engineering Award – Design-Build Winner



3.4.1 Work History Forms

Work History Forms (Attachments 3.4.1(a) and (b)) as required are included in the Appendix.

Section 3.5

Project Risks

The LANE Team has become familiar with the primary elements of work for the I-95 NB RRC project to determine what we believe are the three most relevant and critical project risks. During our evaluation, we considered numerous factors with the potential to influence the project, including:

- **Agency/Stakeholder Coordination:** Having reviewed the corridor and assessed the agency and stakeholder involvement, we anticipate that our team is well positioned to manage and coordinate with these entities starting at NTP through completion without issue.
- **Constrained Access to the Northbound Rappahannock River Crossing (NB RRC):** Although the new SB bridge is under construction and well ahead of this project's anticipated NTP, construction will not be completed, schedules will overlap; the tight constraints of available space and time of year restrictions (TOYR) to gain access to the space is a major concern.
- **Coordinating with Adjacent Projects:** Due to the tight constraints of the corridor, we believe that coordination between the adjacent projects and their respective D-B teams will prove critical, as the projects will be under construction simultaneously, often in the same footprint.
- **Geotechnical:** Given that VDOT will provide a more robust GDR, we anticipate that the unknowns and concerns over marine clays or other unsuitable materials will be better identified. Although still a risk, we believe it will be defined and manageable.
- **Permitting and Environmental:** For any project, permits can cause issues if they are not coordinated properly and expeditiously. Fortunately for our team, WSP has dedicated staff that will mitigate this issue before it becomes a risk. Our team is ultimately familiar with the environmental drivers in this corridor and how they affect permitting and TOYR.
- **Public Involvement:** Although not a major factor for input on this interstate project, we recognize the importance of maintaining public awareness to mitigate concerns over changing traffic patterns and lane shifts.
- **ROW Acquisitions:** On an interstate, ROW acquisitions are typically straightforward and tend not to affect the schedule. However, we will retain ROW acquisitions on our risk register in the event that they become schedule drivers. RDA employs VDOT experienced ROW agents ready to act as required.
- **Structure Design:** We anticipate that the design of the structures (bridges and retaining walls) will be straightforward. Our Lead Structural Engineer has experience with numerous large bridge projects and is supported by a strong team of design engineers to mitigate any risk due to complexity or schedule.
- **SWM:** New SWM regulations continue to challenge projects in providing on-site controls. This is especially true in areas of greater relief or poor soil conditions, as it drives up the cost and potential right-of-way needs. Our team is confident that we will manage this risk due to our active involvement in numerous D-B and D-B-B projects that have implemented these SWM requirements.
- **TMP/MOT:** TMP and MOT are critical components on projects that interface with the public. Every delay or incident is an indictment on the project's perceived success. Access into, through, and out of the work zones will add stress and strain to an overly congested corridor, causing concerns with adequate safety and schedule adherence.
- **Utilities:** There are several utilities along the corridor (including aerial crossings and underground fiber); however, we anticipate that our team's experience and understanding of these facilities (and facility owners) will allow us to avoid and/or minimize conflicts in most cases. Utility relocations will be minimal.

Each of these risks will have a role in the success of the project. To manage these risks and determine which are most critical, the LANE Team follows a systematic process (Risk Management Plan), documenting each risk on a register (VDOT's Form

RISK ANALYSIS MATRIX										Form PM-103 B Rev. 01-27-2014		
PROJECT #												
UPC #												
PROJECT LOCATION												
VDOT DISTRICT												
Risks	RISK ASSESSMENT			RISK RESPONSE			Comments/Notes	Mitigation Strategy	RESIDUAL RISK ASSESSMENT (AFTER APPLIED STRATEGY)			
	Probability	Impact	Probability * Impact	Responsible Team Member	Method	Time/Budget Impact			Probability	Impact	Probability * Impact	

Project Risks Figure 1: VDOT Form PM-103 B

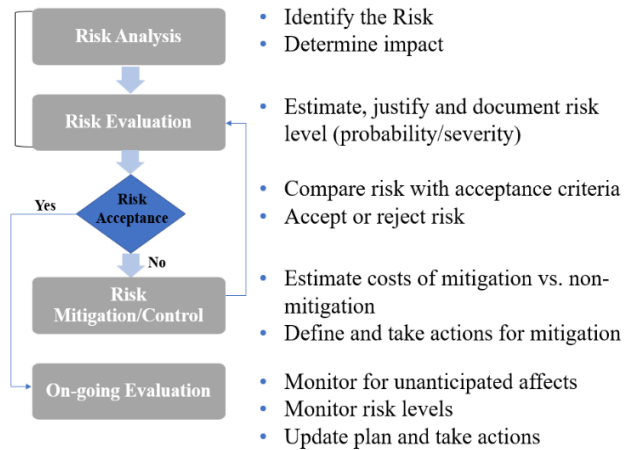
PM-103 B – **RISK ANALYSIS MATRIX**). We evaluate each risk for impact and the probability of the impact’s occurrence. We then assess each risk against mitigation strategies to determine if, and how much, residual risk remains. These processes and procedures allow us to track, assess, and rank each risk throughout the life of the project. In consideration of the risks most relevant and critical for this project, we determined that **Constrained Access for the Northbound Rappahannock River Crossing, Coordinating with Adjacent Projects, and TMP/MOT** will most significantly impact the I-95 NB RRC Project’s success.

RISK #1: Constrained Access for the Northbound Rappahannock River Crossing (NB RRC)

Risk Identification: Reviewing the information provided in the RFQ and the furnished supplementary information by the Department, the LANE Team recognizes that access to the Rappahannock River within the limits of the NB bridge is unique and adds a complexity and risk for the new construction. It is critical to have unrestricted access to construct all bridge components (substructure and superstructure). The challenge stems from the limited space and access remaining to construct I-95 NB RRC during and after the completed construction of I-95 SB RRC bridge. The proximity of the existing I-95 NB and new I-95 SB RRC bridges restricts access to the river/construction site to install coffer dams, mobilize equipment and personnel to construct the bridge. In particular, adequate space is limited for large cranes and other equipment for construction of the piers and erection of the bridge girders.

Why the Risk is Critical and Impacts to the Project: The design and construction of the I-95 NB RRC bridge will be on the project schedule’s critical

Documentation & Communication

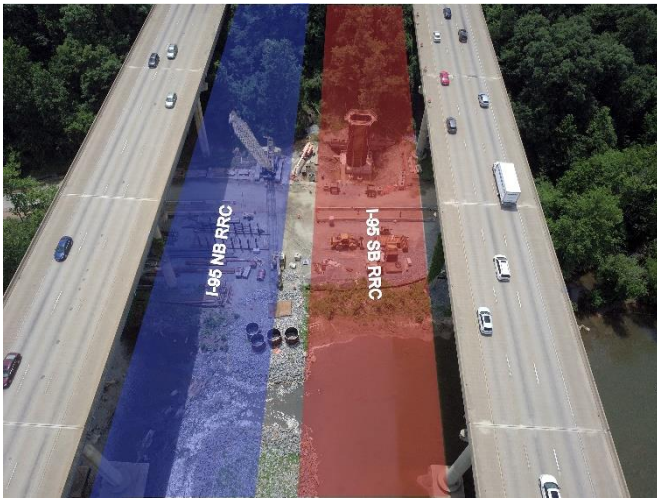


Project Risks Figure 2: Risk Assessment Flow Chart

path. The constrained space and access between the I-95 SB RRC bridge and the existing I-95 NB RRC bridge will limit the ability to stage commonly used equipment to construct the substructure and superstructure of the new bridge. The narrow access and limited maneuverability of equipment and personnel will significantly complicate production. These constraints will result in more complicated and expensive means and methods to construct the bridge.

Access to the river is further constrained by time of the year restrictions (TOYR) imposed by DGIF for in-stream work to protect anadromous fish migration from February 15th to June 30th. Also, the TOYR for the Dwarf Wedgemussel further restricts in-stream activities from August 15th to October 15th. This access constraint will most certainly have an impact on the construction schedule.

Based on the procurement schedule listed in the RFQ, the award date is scheduled for May 20, 2020. The start of the construction is anticipated to be approximately six months after NTP. Contract award, approval of the bridge design packages and environmental/agency permitting must be completed immediately after the TOYR dates shown above to allow for access and construction of



Project Risks Figure 3: Looking SB at RRC Workspace

the bridge. Any delays in accessing the river will have a negative impact to the schedule and potentially delaying the project completion.

Risk Mitigation Strategies: The LANE Team has noted successful experiences in complicated waterway construction. A project with a similar risk was LANE’s I-85 Yadkin River Bridge which is included as one of our three Work History projects. In general, river access always has its challenges and will take a great deal of strategic planning to manage and mitigate.

To meet schedule, the LANE Team will mitigate the following to meet or exceed the construction of the Rappahannock River bridge:

- Coordinate with VDOT for proposed early design packages for the bridge
- Implement a comprehensive constructability review during the preparation of the design packages.
- Advance design and approval of long lead fabrication items
- Obtain early approval of the causeway design/temporary bridges to access the construction of substructure and superstructure location of the bridge
- Access, allocate and/or potentially modify equipment which can be used efficiently in the confined space between the existing bridges
- Expedite the environmental permits to avoid impacting the critical path bridge work.
- Explore options to modify the TOYR

Role of VDOT or other Agencies: The causeway for the new NB bridge is in the same footprint as the one for the new SB bridge being constructed by Wagman. VDOT will have to ensure Wagman is out of the way to not impede the NB schedule. We request VDOT play an active role in expediting the approval of permitting and approval of bridge design packages. Also, VDOT assistance may be required with permitting agencies (such as DGIF and DEQ) if an impasse is reached.

RISK #2: Coordinating with Adjacent Projects

Risk Identification: Based on the current procurement schedule, the start of the roadway construction should begin in January 2021. Coordinating with major contractors and ongoing construction activities within the I-95 NB RRC project limits is a risk that must be managed. The on-going construction projects are:

- 1) I-95 Southbound Rappahannock River Crossing – Final completion November 2021*
- 2) 95 Express Lanes FedEx – Final completion August 2022*

* Final completion dates were obtained from supplementary information provided by VDOT.

Why the Risk is Critical and Impacts to the Project: Overlapping construction activities and interfaces between the three projects, competing interests on how/where traffic should be maintained, and the ability to operate within the confines of their individual schedules will have a major impact on the success of the corridor. Additionally, the proximity and overlap between these projects will likely create



Project Risks Figure 4: Team Interaction

rework and/or conflicts between the projects needing to occupy the same space. Furthermore, accidents and incidents along the corridor, regardless of which section, direction, or location will affect construction along I-95.

Risk Mitigation Strategies: To ensure success and mitigation of the conflicting interests for the three projects, there are three items that must be implemented.

The first and most important element of this mitigation is to have a **Memorandum of Agreement (MOA)** between the three contractors and VDOT. This will establish the framework by which all coordination must occur. Secondly, we employ a full-time **Project Coordinator**, Mr. Erick Smith, who will interact with the other contractors to discuss and assess work activities, MOT needs, and overall schedule influencers. Mr. Smith has extensive experience in interstate projects requiring on-the-fly decisions and adjustments to maintain production and schedule. Third, we propose to develop a **master P6 schedule** that links the three projects. This combined schedule will allow each contractor and VDOT to see where conflicting activities exist and determine the best course of action to adjust them so that all three projects can proceed without a negative impact to their individual schedules. On the surface, these ideas seem simple and logical; however, as you dig deeper, they have many nuances that can complicate and challenge a successful outcome.

Role of VDOT or other Agencies: VDOT's role in ensuring that the mitigation of any conflicts is successful will be that of schedule arbitrator. Undoubtedly, there will be times when consensus cannot be reached in adjusting the priority of the individual schedules to achieve an overall timetable that limits or avoids impacts. In these situations, VDOT's ACE will be charged with determining the priorities and direction going forward.

RISK #3: TMP/MOT

Risk Identification: Impacts to the traveling public during construction are always a concern but are magnified when a major high-volume corridor such as I-95 is involved. In particular, ingress and egress to the work zone will be a critical feature requiring special attention to avoid risk to public and contractor safety.

Why the Risk is Critical and Impacts to the Project: The I-95 Corridor is one of the most congested corridors in the nation and provides a vital north-south transportation link for local, regional, and interstate travelers. High traffic volumes within the project limits (AADT = 149,000 vehicles) combine with travel speeds exceeding 70 mph when traffic is flowing:

- Work zone incidents can wreak havoc on a congested corridor such as I-95, resulting in multi-mile back-ups that can take hours to dissipate.
- Disruption of material deliveries and access to the work zone by the contractor caused by congestion and incidents.
- The speed differential between construction traffic accessing the work zone and the traveling public becomes a safety problem if ingress and egress points are not properly identified and advanced warnings provided for the same.

The impact of not addressing, inadequately identifying, and/or improperly communicating these critical elements will have substantial impacts on:

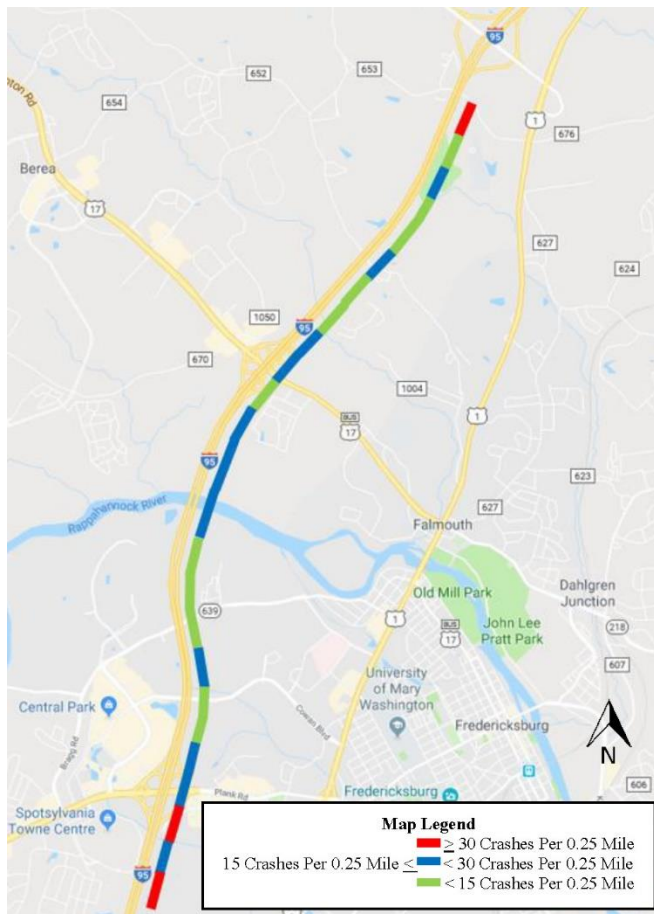
- Safety: traveling public, VDOT support personnel, construction personnel
- Project schedule: construction efficiency, lost time, delays
- Access for emergency responders
- Commuter travel times
- Public outcry/complaints/scrutiny

Risk Mitigation Strategies: The LANE Team's mitigation strategies will begin with the development of the TMP that will focus on communication, incident management, and special attention to construction staging and access. RDA has served as the lead consultant responsible for the TMP on several D-B projects for LANE including: 95 Express Lanes, the award-winning I-66/Route 15 Interchange Reconstruction, I-66 Eastbound Widening Inside the Beltway, and most recently, on 395 Express Lanes to assist with implementation challenges during construction. This extensive experience on interstates and along this corridor provides added value in mitigating this risk by having a strong understanding of complex, interstate MOT in heavily congested corridors. The LANE Team's experience together has successfully

provided well-integrated TMP/MOT strategy's that smoothly transitions from design to implementation. The TMP will be further enhanced by LANE's extensive experience with the 95 Express Lanes, 495 Express Lanes (see *Work Histories*), and currently on the 395 Express Lanes.

Construction Staging and Access: The LANE Team will position staging areas and work zone access points to minimize impacts to traffic along the corridor by locating them within low crash prone areas. Special consideration will be given to minimize access points and develop internal haul roads for the movement of material on-site. Access points will be visible, well signed and delineated, and provide adequate acceleration and deceleration lanes to ensure maximum safety for the travelling public interacting with slower moving construction vehicles. The LANE Team will develop a construction schedule that will optimize the use of these access points and material deliveries to minimize disruptions to traffic. In some cases, material deliveries may need to be restricted to off-peak hours.

Project Risks Figure 5: Crash Density Map



The 495 Express Lanes team received the VDOT and Megaprojects, Commonwealth of Virginia Award of Excellence, Integrated Communications award for their continuous efforts to ensure the public was involved and informed throughout the duration of the project.

Public Awareness and Outreach: The LANE Team will keep the public informed of construction plans and schedules to include changes to traffic movements, lane closures, and other changes in project status. Coordination with both the Regional Traffic Operations Center and the Fredericksburg District Office will be necessary to ensure consistent messaging to all local and regional stakeholders seeking information related to their travel in the corridor. The LANE Team public outreach strategies will include the following:

- Dynamic messaging signs to provide advance warnings and current work zone activities
- Provide up to date information for construction progress, work zone changes, and incident reports
- Provide a line of communication (hotline) for the public during construction to express concerns
- Commuter lot windshield flyers as needed to alert commuters to upcoming changes
- Initiate a collaborative program with VDOT, Stafford County, Spotsylvania County, and City of Fredericksburg and first responders to review the TMP, construction schedules, incident response plans, and changing traffic patterns before implementation.

Incident Management Plan: An effective TMP provides accommodations for unexpected and/or unplanned events such as disabled vehicles, accidents, weather, and other special events. We will develop and implement a plan that will deal with such events outside of our control. The Incident Management Plan will provide the following:

- 24/7 contacts for emergency notification of an incident by the TOC
- Emergency detour routes
- Coordination with first responders

- Law enforcement, fire, and rescue access to work zones during incidents
- Pre-planned messages for various types of incidents for portable DMS
- On-call wrecker service to quickly respond to disabled vehicles

Each of these mitigation strategies should be implemented as a combined program (i.e., handling all three projects as a single project). This approach, in conjunction with the LANE Team's previous experience in the corridor, specifically the 95 Express Lanes D-B project, will minimize the risk posed by work zone incidents, access, and congestion. In fact, RDA, in collaboration with LANE, coordinated and partnered with the Virginia

Megaprojects office and Northern Region Operations (NRO) during the development of TMP/MOT strategies for the 95 Express Lanes D-B.

Role of VDOT or other Agencies: Our proposed public outreach, incident management plan, and partnering initiatives will guide stakeholders to the LANE Team's point of contact should issues arise. These strategies will minimize the need for additional effort by VDOT. However, similar to Risk No. 2 above, we anticipate that VDOT may need to play an active role in arbitrating how the three projects, with their individual goals and interests, coalesce with VDOT's common interests in the corridor. The LANE Team commits to and will assist VDOT in achieving this objective.

Attachment 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	no	Appendix Attachment 3.1.2
Acknowledgement of RFQ, Revision and/or Addenda	Attachment 2.10 (Form C-78-RFQ)	Section 2.10	no	Appendix Attachment 2.10
Letter of Submittal (on Offeror's letterhead)				
Authorized Representative's signature	NA	Section 3.2.1	yes	Page 2
Offeror's point of contact information	NA	Section 3.2.2	yes	Page 1
Principal officer information	NA	Section 3.2.3	yes	Page 2
Offeror's Corporate Structure	NA	Section 3.2.4	yes	Page 2
Identity of Lead Contractor and Lead Designer	NA	Section 3.2.5	yes	Page 2
Affiliated/subsidiary companies	Attachment 3.2.6	Section 3.2.6	no	Appendix Attachment 3.2.6
Debarment forms	Attachment 3.2.7(a) Attachment 3.2.7(b)	Section 3.2.7	no	Appendix Attachment 3.2.7(a) & 3.2.7(b)
Offeror's VDOT prequalification evidence	NA	Section 3.2.8	no	Appendix
Evidence of obtaining bonding	NA	Section 3.2.9	no	Appendix

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
SCC and DPOR registration documentation (Appendix)	Attachment 3.2.10	Section 3.2.10	no	Appendix Attachment 3.2.10
Full size copies of SCC Registration	NA	Section 3.2.10.1	no	Appendix
Full size copies of DPOR Registration (Offices)	NA	Section 3.2.10.2	no	Appendix
Full size copies of DPOR Registration (Key Personnel)	NA	Section 3.2.10.3	no	Appendix
Full size copies of DPOR Registration (Non-APELSCIDLA)	NA	Section 3.2.10.4	no	N/A
DBE statement within Letter of Submittal confirming Offeror is committed to achieving the required DBE goal	NA	Section 3.2.11	yes	Page 2
Offeror's Team Structure				
Identity of and qualifications of Key Personnel	NA	Section 3.3.1	yes	Page 3
Key Personnel Resume – DB Project Manager	Attachment 3.3.1	Section 3.3.1.1	no	Appendix Attachment 3.3.1
Key Personnel Resume – Entrusted Engineer In charge	Attachment 3.3.1	Section 3.3.1.2	no	Appendix Attachment 3.3.1
Key Personnel Resume – Quality Assurance Manager	Attachment 3.3.1	Section 3.3.1.3		Appendix Attachment 3.3.1
Key Personnel Resume – Design Manager	Attachment 3.3.1	Section 3.3.1.4	no	Appendix Attachment 3.3.1
Key Personnel Resume – Construction Manager	Attachment 3.3.1	Section 3.3.1.5	no	Appendix Attachment 3.3.1
Key Personnel Resume – Lead Structural Engineer	Attachment 3.3.1	Section 3.3.1.6	no	Appendix Attachment 3.3.1
Organizational chart	NA	Section 3.3.2	yes	Page 4
Organizational chart narrative	NA	Section 3.3.2	yes	Pages 5-7

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				Page 8
Lead Contractor Work History Form	Attachment 3.4.1(a)	Section 3.4	no	Appendix Attachment 3.4.1(a)
Lead Designer Work History Form	Attachment 3.4.1(b)	Section 3.4	no	Appendix Attachment 3.4.1(b)
Project Risk				
Identify and discuss three critical risks for the Project	NA	Section 3.5.1	yes	Pages 9-14

Attachment 2.10 (Form C-78)
ACKNOWLEDGEMENT OF RFQ, REVISIONS,
AND/OR ADDENDA

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)



July 2, 2019

SIGNATURE

DATE

Mark A. Schiller

EVP & COO- Construction

PRINTED NAME

TITLE

Attachment 3.2.6
LIST OF AFFILIATED & 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.

<input type="checkbox"/> The Offeror does not have any affiliated or subsidiary companies.
<input checked="" type="checkbox"/> Affiliated and/ or subsidiary companies of the Offeror are listed below.

Relationship with Offeror (Affiliate or Subsidiary)	Full Legal Name	Address
Affiliate	Salini Impregilo, S.p.A.	Via dei Missaglia, 97 – 20142, Milan, Italy
Affiliate	Salini Impregilo US Holdings, Inc.	2711 Centerville Road, Suite 400, Wilmington, DE 19808
Affiliate	Lane Industries Incorporated	90 Fieldstone Court, Cheshire, CT 06410-1212
Affiliate	Lane Infrastructure, Inc.	90 Fieldstone Court, Cheshire, CT 06410-1212
Affiliate	Lane Worldwide Infrastructure, Inc.	90 Fieldstone Court, Cheshire, CT 06410-1212
Affiliate	Lane Power & Energy Solutions, Inc.	16000 Park Ten Place, Suite 703, Houston, TX 77084
Affiliate	Lane Infrastructure, Canada, Inc.	400-725 Granville Street, P.O. Box 10325, Vancouver, BC V7Y 1G5
Affiliate	Lane Civil Works Canada, Inc.	400-725 Granville Street, P.O. Box 10325, Vancouver, BC V7Y 1G5
Affiliate	Lane GHIB GP, Inc.	400-725 Granville Street, P.O. Box 10325, Vancouver, BC V7Y 1G5
Subsidiary	Wardwell Family Realty, LLC	90 Fieldstone Court, Cheshire, CT 06410-1212
Affiliate – Joint Venture	Salini Impregilo Healy JV 3RPORT	90 Fieldstone Court, Cheshire, CT 06410-1212
Affiliate – Joint Venture	Salini Impregilo Healy JV NEBT	2600 Independence Avenue SE, Washington D.C. 20003
Affiliate – Joint Venture	Lane-Security Paving Joint Venture	90 Fieldstone Court, Cheshire, CT 06410-1212
Affiliate – Joint Venture	C43 Water Management Builders	90 Fieldstone Court, Cheshire, CT 06410-1212
Affiliate – Joint Venture	The Lane-Blythe Construction JV	6125 Tyvola Center Drive, Charlotte, NC 28217

ATTACHMENT 3.2.6

State Project No. 0095-111-270

Affiliated and Subsidiary Companies of the Offeror

Affiliate – Joint Venture	LMH-Lane Cabot Yard JV	100 Hancock Street, Suite 901, Quincy, MA 02171
Affiliate – Joint Venture	LMH-Lane Cabot Yard JV	100 Hancock Street, Suite 901, Quincy, MA 02171
Affiliate – Joint Venture	Unionport Constructors JV	150 Meadowlands Parkway #3, Secaucus, NJ 07094
Affiliate – Joint Venture	Fluor-Lane South Carolina, LLC	100 Fluor Daniel Drive, Greenville, SC 29607
Affiliate – Joint Venture	Salini Impregilo Healy JV	786 E. 140th Street, Cleveland, OH 44110
Affiliate – Joint Venture	Skanska-Granite-Lane Joint Venture / I-4 Leasing, LLC	295 Bendix Road, Suite 400, Virginia Beach, VA 23452
Affiliate – Joint Venture	Purple Line Transit Constructors, LLC	6811 Kenilworth Avenue, East Riverdale, MD 20737
Affiliate – Joint Venture	Lane-Corman, A Joint Venture	90 Fieldstone Court, Cheshire, CT 06410-1212
Affiliate – Joint Venture	Lane-Abrams Joint Venture	3001 Meacham Boulevard, Suite 215, Fort Worth, TX 76137
Affiliate – Joint Venture	Fluor-Lane 95, LLC	6700 Las Colinas Boulevard, Irving, TX 75039
Affiliate – Joint Venture	Barnard Impregilo Healy Joint Venture	701 Gold Avenue, Bozeman, MT 59715
Affiliate – Joint Venture	Impregilo Healy Parsons JV	2600 Independence Avenue SE, Washington D.C. 20003
Affiliate – Joint Venture	AGL Constructors	929 West Adams Street, Chicago, IL 60607
DBA Name	Lanecon Corporation	90 Fieldstone Court, Cheshire, CT 06410-1212
DBA Name	S.A. Healy Company	90 Fieldstone Court, Cheshire, CT 06410-1212
DBA Name	Lane Concrete Frames, A Division of The Lane Construction Corporation	90 Fieldstone Court, Cheshire, CT 06410-1212
DBA Name	Civil Wall Solutions, A Division of The Lane Construction Corporation	90 Fieldstone Court, Cheshire, CT 06410-1212
DBA Name	Virginia Sign & Lighting Company, A Division of The Lane Construction Corporation	90 Fieldstone Court, Cheshire, CT 06410-1212

Attachment 3.2.7(a)
DEBARMENT FORM
PRIMARY COVERED TRANSACTIONS

ATTACHMENT 3.2.7(a)

CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

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

EVP & COO- Construction

Title

The Lane Construction Corporation

Name of Firm

Attachment 3.2.7(b)
DEBARMENT FORM
LOWER TIER COVERED TRANSACTION

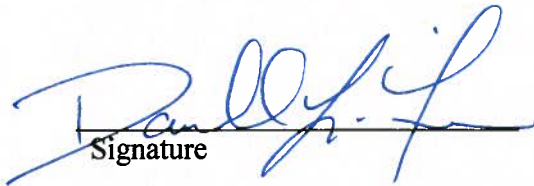
ATTACHMENT 3.2.7(b)

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

July 2, 2019

Date

Chief Business Officer

Title

Rinker Design Associates, P.C. (RDA)

Name of Firm


ATTACHMENT 3.2.7(b)

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.

 _____	July 2, 2019 _____	<i>President</i> _____
Signature	Date	Title

CEB CONSULTING, LLC

Name of Firm

ATTACHMENT 3.2.7(b)

**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

July 2, 2019

Date

Vice President

Title

DMY Engineering Consultants Inc.

Name of Firm

ATTACHMENT 3.2.7(b)

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.

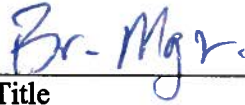
The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.



Signature

July 2, 2019

Date



Title

FROEHLING & ROBERTSON, INC.

Name of Firm

ATTACHMENT 3.2.7(b)

**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.

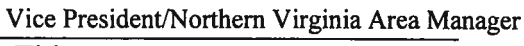
The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.



Signature



Date



Title

WSP USA Inc.

Name of Firm

OFFEROR'S VDOT PREQUALIFICATION CERTIFICATE



**Department's List of Prequalified Vendors
Includes All Qualified Levels As Of 6/21/2019**

- L -

Vendor ID: L002

Vendor Name: THE LANE CONSTRUCTION CORPORATION

Prequal Level: Prequalified

Prequal Exp: 06/30/2020

-- PREQ Address --

90 FIELDSTONE COURT
CHESHIRE, CT 06410-1212
Phone: (203)235-3351
Fax: (203)237-4260

Work Classes (Listed But Not Limited To)

002 - GRADING
003 - MAJOR STRUCTURES
004 - ASPHALT CONCRETE PAVING
006 - PORTLAND CEMENT CONCRETE PAVING
007 - MINOR STRUCTURES
045 - UNDERGROUND UTILITIES

Bus. Contact: FIRMENDER, SETH TADDIA

Email: VAPREQUAL@LANECONSTRUCT.COM

-- DBE Information --

DBE Type: N/A

DBE Contact: N/A

SURETY LETTER

LIBERTY MUTUAL INSURANCE COMPANY
NATIONAL UNION FIRE INSURANCE COMPANY OF PITTSBURGH, PA
ZURICH AMERICAN INSURANCE COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND
BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY

June 17, 2019

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

RE: **The Lane Construction Corporation
Request for Qualifications
A Design Build Project - 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); State Project No.: 0095-111-270
Federal Project No.: NHP-095-2(531), Contract ID Number: C00105510DB106
Estimated Contract Price: \$132,500,000.00**

To Whom It May Concern:

This letter will serve to confirm that The Lane Construction Corporation is a highly regarded and valued client of the sureties, Liberty Mutual Insurance Company, National Union Fire Insurance Company of Pittsburgh, PA, Fidelity and Deposit Company of Maryland and Berkshire Hathaway Specialty Insurance Company (the 'co-sureties'). Each surety company is licensed to conduct surety business in the Commonwealth of Virginia, and each surety company holds a Certificate of Authority as listed in the Department of the Treasury's Listing of Approved Sureties (Department Circular 570) dated July 1, 2018. Furthermore, each surety company is rated "A" or better by A.M. Best Company, all with Financial Size Category "XV".

As the sureties for The Lane Construction Corporation, we advise that The Lane Construction Corporation 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.

Naturally, as is customary within the surety industry, the issuance of any bonds is contingent upon a favorable underwriting review of project specifics including, but not limited to, the contract terms, conditions, documents, bond forms and confirmation of complete project financing by both The Lane Construction Corporation and its co-sureties, as well as such other underwriting criteria that may be applicable, at the time a request for bonds is made. We assume no liability to third parties or to you by issuance of this letter, should bid or final bonds not be issued.

Should you need additional assurance regarding the technical ability or bonding capacity of The Lane Construction Corporation, please do not hesitate to contact this office.

Sincerely,

Liberty Mutual Insurance Company
National Union Fire Insurance Company of Pittsburgh, PA
Zurich American Insurance Company
Fidelity and Deposit Company of Maryland
Berkshire Hathaway Specialty Insurance Company



Theresan E. Rowedder
Attorney-in-Fact



Aon Risk Services
53 State Street
Suite 2201
Boston, MA 02109
860-830-1769



This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

Certificate No: 8197979-012022

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Maria Chaves; Jean Correia; Jane Gilson; Mark P. Herendeen; Bryan Huft; Thersan E. Rowedder; Kevin A. White

all of the city of Boston state of MA each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 15th day of November, 2018.



Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

By: [Signature]
David M. Carey, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

State of PENNSYLVANIA ss
County of MONTGOMERY

On this 15th day of November, 2018 before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute 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 have hereunto subscribed my name and affixed my notarial seal at King of Prussia, Pennsylvania, on the day and year first above written.



COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Teresa Pastella, Notary Public
Upper Merion Twp., Montgomery County
My Commission Expires March 28, 2021
Member, Pennsylvania Association of Notaries

By: [Signature]
Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

ARTICLE IV - OFFICERS: Section 12. Power of Attorney.

Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII - Execution of Contracts: Section 5. Surety Bonds and Undertakings.

Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation - The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization - By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 17th day of June, 2019.



By: [Signature]
Renee C. Llewellyn, Assistant Secretary

To confirm the validity of this Power of Attorney call 1-610-832-8240 between 9:00 am and 4:30 pm EST on any business day.

POWER OF ATTORNEY

American Home Assurance Company
National Union Fire Insurance Company of Pittsburgh, PA.
Principal Bond Office: 175 Water Street, New York, NY 10038

Power No. 8064

No. 01-B-103378

KNOW ALL MEN BY THESE PRESENTS:

That American Home Assurance Company, a New York corporation, and National Union Fire Insurance Company of Pittsburgh, PA., a Pennsylvania corporation, does each hereby appoint

Mark P. Herdaen, Jean Corcia, Maria Chaves, Jane Gilson, Theresan E. Rowadder, of Boston, Massachusetts--

its true and lawful Attorney(s) in fact, with full authority to execute on its behalf bonds, undertakings, recognizances and other contracts of indemnity and writings obligatory in the nature thereof, issued in the course of its business, and to bind the respective company thereby.

IN WITNESS WHEREOF, American Home Assurance Company and National Union Fire Insurance Company of Pittsburgh, PA. have each executed these presents

this 23rd day of July, 2018



Handwritten signature of Michael Yang

Michael Yang, Vice President

STATE OF NEW YORK }
COUNTY OF NEW YORK } ss.

On this 23rd day of July, 2018 before me came the above named officer of American Home Assurance Company and National Union Fire Insurance Company of Pittsburgh, PA., to me personally known to be the individual and officer described herein, and acknowledged that he executed the foregoing instrument and affixed the seals of said corporations thereto by authority of his office.

Handwritten signature of Juliana Hallenbeck

JULIANA HALLENBECK
Notary Public - State of New York
No. 01140212571
Qualified in Dutchess County
My Commission Expires April 18, 2021

CERTIFICATE

Excerpts of Resolutions adopted by the Boards of Directors of American Home Assurance Company and National Union Fire Insurance Company of Pittsburgh, PA. on May 18, 1976:

"RESOLVED, that the Chairman of the Board, the President, or any Vice President be, and hereby is, authorized to appoint Attorneys-in-Fact to represent and act for and on behalf of the Company to execute bonds, undertakings, recognizances and other contracts of indemnity and writings obligatory in the nature thereof, and to attach thereto the corporate seal of the Company, in the transaction of its surety business;

"RESOLVED, that the signatures and attestations of such officers and the seal of the Company may be affixed to any such Power of Attorney or to any certificate relating thereto by facsimile, and any such Power of Attorney or certificate bearing such facsimile signatures or facsimile seal shall be valid and binding upon the Company when so affixed with respect to any bond, undertaking, recognizance and other contract of indemnity and writing obligatory in the nature thereof;

"RESOLVED, that any such Attorney-in-Fact delivering a secretarial certification that the foregoing resolutions still be in effect may insert in such certification the date thereof, said date to be not later than the date of delivery thereof by such Attorney-in-Fact."

I, Martin Bogue, Assistant Secretary of American Home Assurance Company and of National Union Fire Insurance Company of Pittsburgh, PA. do hereby certify that the foregoing excerpts of Resolutions adopted by the Boards of Directors of these corporations, and the Powers of Attorney issued pursuant thereto, are true and correct, and that both the Resolutions and the Powers of Attorney are in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the facsimile seal of each corporation

this 17th day of June, 2019



Handwritten signature of Martin Bogue

Martin Bogue, Assistant Secretary

**ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND
POWER OF ATTORNEY**

KNOW ALL MEN BY THESE PRESENTS: That the ZURICH AMERICAN INSURANCE COMPANY, a corporation of the State of New York, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, a corporation of the State of Illinois, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND a corporation of the State of Illinois (herein collectively called the "Companies"), by **Robert D. Murray, Vice President**, in pursuance of authority granted by Article V, Section 8, of the By-Laws of said Companies, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, do hereby nominate, constitute, and appoint **Mark P. HERENDEEN, Jean CORREIA, Maria CHAVES, Theresan E. ROWEDDER, Bryan HUFT and Jane GILSON, all of Boston, Massachusetts, EACH** its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: **any and all bonds and undertakings**, and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Companies, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the ZURICH AMERICAN INSURANCE COMPANY at its office in New York, New York., the regularly elected officers of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at its office in Owings Mills, Maryland., and the regularly elected officers of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at its office in Owings Mills, Maryland., in their own proper persons.

The said Vice President does hereby certify that the extract set forth on the reverse side hereof is a true copy of Article V, Section 8, of the By-Laws of said Companies, and is now in force.

IN WITNESS WHEREOF, the said Vice-President has hereunto subscribed his/her names and affixed the Corporate Seals of the said **ZURICH AMERICAN INSURANCE COMPANY, COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND**, this 6th day of February, A.D. 2019.



**ATTEST:
ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND**

By: *Robert D. Murray*
Vice President

By: *Dawn E. Brown*
Secretary

**State of Maryland
County of Baltimore**

On this 6th day of February, A.D. 2019, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, **Robert D. Murray, Vice President and Dawn E. Brown, Secretary** of the Companies, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and acknowledged the execution of same, and being by me duly sworn, deposeth and saith, that he/she is the said officer of the Company aforesaid, and that the seals affixed to the preceding instrument are the Corporate Seals of said Companies, and that the said Corporate Seals and the signature as such officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporations.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year first above written.



Constance A. Dunn, Notary Public
My Commission Expires: July 9, 2019

EXTRACT FROM BY-LAWS OF THE COMPANIES

"Article V, Section 8, Attorneys-in-Fact. The Chief Executive Officer, the President, or any Executive Vice President or Vice President may, by written instrument under the attested corporate seal, appoint attorneys-in-fact with authority to execute bonds, policies, recognizances, stipulations, undertakings, or other like instruments on behalf of the Company, and may authorize any officer or any such attorney-in-fact to affix the corporate seal thereto; and may with or without cause modify or revoke any such appointment or authority at any time."

CERTIFICATE

I, the undersigned, Secretary of the ZURICH AMERICAN INSURANCE COMPANY, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, do hereby certify that the foregoing Power of Attorney is still in full force and effect on the date of this certificate; and I do further certify that Article V, Section 8, of the By-Laws of the Companies is still in force.

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the ZURICH AMERICAN INSURANCE COMPANY at a meeting duly called and held on the 15th day of December 1998.

RESOLVED: "That the signature of the President or a Vice President and the attesting signature of a Secretary or an Assistant Secretary and the Seal of the Company may be affixed by facsimile on any Power of Attorney...Any such Power or any certificate thereof bearing such facsimile signature and seal shall be valid and binding on the Company."

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at a meeting duly called and held on the 5th day of May, 1994, and the following resolution of the Board of Directors of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at a meeting duly called and held on the 10th day of May, 1990.

RESOLVED: "That the facsimile or mechanically reproduced seal of the company and facsimile or mechanically reproduced signature of any Vice-President, Secretary, or Assistant Secretary of the Company, whether made heretofore or hereafter, wherever appearing upon a certified copy of any power of attorney issued by the Company, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seals of the said Companies, this 17th day of JUNE, 2019.



Brian M. Hodges

By: Brian M. Hodges
Vice President

TO REPORT A CLAIM WITH REGARD TO A SURETY BOND, PLEASE SUBMIT A COMPLETE DESCRIPTION OF THE CLAIM INCLUDING THE PRINCIPAL ON THE BOND, THE BOND NUMBER, AND YOUR CONTACT INFORMATION TO:

Zurich Surety Claims
1299 Zurich Way
Schaumburg, IL 60196-1056
www.reportsfclaims@zurichna.com
800-626-4577



Power Of Attorney

BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY
NATIONAL INDEMNITY COMPANY / NATIONAL LIABILITY & FIRE INSURANCE COMPANY

Know all men by these presents, that **BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY**, a corporation existing under and by virtue of the laws of the State of Nebraska and having an office at One Lincoln Street, 23rd Floor, Boston, Massachusetts 02111, **NATIONAL INDEMNITY COMPANY**, a corporation existing under and by virtue of the laws of the State of Nebraska and having an office at 3024 Harney Street, Omaha, Nebraska 68131 and **NATIONAL LIABILITY & FIRE INSURANCE COMPANY**, a corporation existing under and by virtue of the laws of the State of Connecticut and having an office at 100 First Stamford Place, Stamford, Connecticut 06902 (hereinafter collectively the "Companies"), pursuant to and by the authority granted as set forth herein, do hereby name, constitute and appoint: **Maria Chaves, Jean Correia, Jane Gilson, Mark P. Herendeen, Theresan E. Rowedder, 53 State Street, Suite 2201 of the city of Boston State of Massachusetts**, their true and lawful attorney(s)-in-fact to make, execute, seal, acknowledge, and deliver, for and on their behalf as surety and as their act and deed, any and all undertakings, bonds, or other such writings obligatory in the nature thereof, in pursuance of these presents, the execution of which shall be as binding upon the Companies as if it has been duly signed and executed by their regularly elected officers in their own proper persons. This authority for the Attorney-in-Fact shall be limited to the execution of the attached bond(s) or other such writings obligatory in the nature thereof.

In witness whereof, this Power of Attorney has been subscribed by an authorized officer of the Companies, and the corporate seals of the Companies have been affixed hereto this date of December 20, 2018. This Power of Attorney is made and executed pursuant to and by authority of the Bylaws, Resolutions of the Board of Directors, and other Authorizations of **BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY, NATIONAL INDEMNITY COMPANY and NATIONAL LIABILITY & FIRE INSURANCE COMPANY**, which are in full force and effect, each reading as appears on the back page of this Power of Attorney, respectively.

BERKSHIRE HATHAWAY SPECIALTY
INSURANCE COMPANY,

By:

David Fields, Executive Vice President



NATIONAL INDEMNITY COMPANY,
NATIONAL LIABILITY & FIRE INSURANCE COMPANY,

By:

David Fields, Vice President

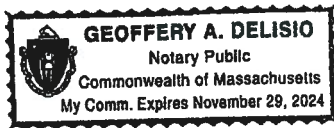


NOTARY

State of Massachusetts, County of Suffolk, ss:

On this 20th day of December, 2018, before me appeared David Fields, Executive Vice President of BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY and Vice President of NATIONAL INDEMNITY COMPANY and NATIONAL LIABILITY & FIRE INSURANCE COMPANY, who being duly sworn, says that his capacity is as designated above for such Companies; that he knows the corporate seals of the Companies; that the seals affixed to the foregoing instrument are such corporate seals; that they were affixed by order of the board of directors or other governing body of said Companies pursuant to its Bylaws, Resolutions and other Authorizations, and that he signed said instrument in that capacity of said Companies.

[Notary Seal]



Notary Public

I, Ralph Tortorella, the undersigned, Officer of **BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY, NATIONAL INDEMNITY COMPANY and NATIONAL LIABILITY & FIRE 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 is in full force and effect and has not been revoked. IN TESTIMONY WHEREOF, see hereunto affixed the seals of said Companies this June 17, 2019.



Officer

To verify the authenticity of this Power of Attorney please contact us at: BHSI Surety Department, Berkshire Hathaway Specialty Insurance Company, One Lincoln Street, 23rd Floor Boston, MA 02111 | (770) 625-2516 or by email at Jennifer.Porter@bhspecialty.com THIS POWER OF ATTORNEY IS VOID IF ALTERED

To notify us of a claim please contact us on our 24-hour toll free number at (855) 453-9675, via email at claimsnotice@bhspecialty.com, via fax to (617) 507-8259, or via mail.

BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY (BYLAWS)

ARTICLE V.

CORPORATE ACTIONS

....

EXECUTION OF DOCUMENTS:

....

Section 6.(b) The President, any Vice President or the Secretary, shall have the power and authority:

- (1) To appoint Attorneys-in-fact, and to authorize them to execute on behalf of the Company bonds and other undertakings, and
- (2) To remove at any time any such Attorney-in-fact and revoke the authority given him.

NATIONAL INDEMNITY COMPANY (BY-LAWS)

Section 4. Officers, Agents, and Employees:

A. The officers shall be a President, one or more Vice Presidents, a Secretary, one or more Assistant Secretaries, a Treasurer, and one or more Assistant Treasurers none of whom shall be required to be shareholders or Directors and each of whom shall be elected annually by the Board of Directors at each annual meeting to serve a term of office of one year or until a successor has been elected and qualified, may serve successive terms of office, may be removed from office at any time for or without cause by a vote of a majority of the Board of Directors, and shall have such powers and rights and be charged with such duties and obligations as usually are vested in and pertain to such office or as may be directed from time to time by the Board of Directors; and the Board of Directors or the officers may from time to time appoint, discharge, engage, or remove such agents and employees as may be appropriate, convenient, or necessary to the affairs and business of the corporation.

NATIONAL INDEMNITY COMPANY (BOARD RESOLUTION ADOPTED AUGUST 6, 2014)

RESOLVED, That the President, any Vice President or the Secretary, shall have the power and authority to (1) appoint Attorneys-in-fact, and to authorize them to execute on behalf of this Company bonds and other undertakings and (2) remove at any time any such Attorney-in-fact and revoke the authority given.

NATIONAL LIABILITY & FIRE INSURANCE COMPANY (BY-LAWS)

ARTICLE IV

Officers

Section 1. Officers, Agents and Employees:

A. The officers shall be a president, one or more vice presidents, one or more assistant vice presidents, a secretary, one or more assistant secretaries, a treasurer, and one or more assistant treasurers, none of whom shall be required to be shareholders or directors, and each of whom shall be elected annually by the board of directors at each annual meeting to serve a term of office of one year or until a successor has been elected and qualified, may serve successive terms of office, may be removed from office at any time for or without cause by a vote of a majority of the board of directors. The president and secretary shall be different individuals. Election or appointment of an officer or agent shall not create contract rights. The officers of the Corporation shall have such powers and rights and be charged with such duties and obligations as usually are vested in and pertain to such office or as may be directed from time to time by the board of directors; and the board of directors or the officers may from time to time appoint, discharge, engage, or remove such agents and employees as may be appropriate, convenient, or necessary to the affairs and business of the Corporation.

NATIONAL LIABILITY & FIRE INSURANCE COMPANY (BOARD RESOLUTION ADOPTED AUGUST 6, 2014)

RESOLVED, That the President, any Vice President or the Secretary, shall have the power and authority to (1) appoint Attorneys-in-fact, and to authorize them to execute on behalf of this Company bonds and other undertakings and (2) remove at any time any such Attorney-in-fact and revoke the authority given.

Attachment 3.2.10
SCC and DPOR REGISTRATION DOCUMENTATION

ATTACHMENT 3.2.10
State Project No. 0095-111-270
SCC and DPOR Information

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 and individuals listed are active and in good standing.

SCC & DPOR INFORMATION FOR BUSINESSES (RFQ Sections 3.2.10.1 and 3.2.10.2)							
Business Name	SCC Information (3.2.10.1)			DPOR Information (3.2.10.2)			
	SCC Number	SCC Type of Corporation	SCC Status	DPOR Registered Address	DPOR Registration Type	DPOR Registration Number	DPOR Expiration Date
The Lane Construction Corporation	F0254476	Foreign Corporation	Active	90 Fieldstone Ct., Cheshire, CT 06410	Contractor Class A	2701011871	01-31-2020
The Lane Construction Corporation	N/A	N/A	N/A	14500 Avion Pkwy., Ste. 200 Chantilly, VA 20151	Business Entity Registration	0407002174	12-31-2019
Rinker Design Associates, P.C. (RDA)	02270627	Corporation	Active	9385 Discovery Blvd., Ste. 200 Manassas, VA 20109	Professional Corporation Registration	0405000502	12-31-2019
Rinker Design Associates, P.C. (RDA)	N/A	N/A	N/A	927 Maple Grove Dr., Ste. 105 Fredericksburg, VA 22407	Professional Corporation Branch Office Registration	0410000156	02-29-2020
Rinker Design Associates, P.C. (RDA)	N/A	N/A	N/A	4301 Dominion Blvd., Ste. 100 Glen Allen, VA 23060	Professional Corporation Branch Office Registration	0410000220	02-29-2020
Rinker Design Associates, P.C. (RDA)	N/A	N/A	N/A	4500 Main Street, Ste. 310 Virginia Beach, VA 23462	Professional Corporation Branch Office Registration	0410000312	02-29-2020
Rinker Design Associates, P.C. (RDA)	N/A	N/A	N/A	4301 Dominion Blvd., Ste. 100 Glen Allen, VA 23060	Appraisal	4008001801	04-30-2020
Rinker Design Associates, P.C. (RDA)	N/A	N/A	N/A	927 Maple Grove Dr., Ste. 105 Fredericksburg, VA 22407	Appraisal	4008001739	04-30-2020
CES Consulting, LLC	S3416007	LLC	Active	23475 Rock Haven Way, Ste. 255 Dulles, VA 20166	Business Entity Registration	0407005783	12-31-2019

ATTACHMENT 3.2.10
State Project No. 0095-111-270
SCC and DPOR Information

DMY Engineering Consultants, Inc.	07688955	Corporation	Active	45662 Terminal Dr., Ste. 110 Dulles, VA 20166	Business Entity Registration	0407005631	12-31-2019
Froehling & Robertson, Inc.	00272112	Corporation	Active	10909 Houser Dr., Fredericksburg, VA 22408	Business Entity Branch Office Registration	0411000050	02-29-2020
WSP USA, Inc.	F050160-3	Foreign Corporation	Active	13530 Dulles Technology Dr., Ste. 300 Herndon, VA 20171	Business Entity Branch Office Registration	0411000142	02-29-2020

DPOR INFORMATION FOR INDIVIDUALS (RFQ Sections 3.2.10.3 and 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
The Lane Construction Corporation	David Grey, PE	Charlotte, NC	6750 Fox Ridge Circle, Davidson, NC 28036	Professional Engineer	0402014687	05-31-2021
Rinker Design Associates, P.C. (RDA)	John Giometti, PE	Fredericksburg, VA	19417 Woods Road, Culpeper, VA 22701	Professional Engineer	0402032300	07-31-2020
CES Consulting, LLC	Syed Khan, PE	Chantilly, VA	43744 Paramount Place, Chantilly, VA 20152	Professional Engineer	0402031057	07-31-2021
WSP USA, Inc.	Rex Gilley, PE	Herndon, VA	5377 Blackwater Loop, Virginia Beach, VA 23457	Professional Engineer	0402025213	06-30-2020

FULL SIZE COPIES OF SCC REGISTRATION



SCC eFile

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THE LANE CONSTRUCTION CORPORATION

General

SCC ID: F0254476
Entity Type: Foreign Corporation
Jurisdiction of Formation: CT
Date of Formation/Registration: 7/24/1972
Status: Active
Shares Authorized: 15720

Principal Office

90 FIELDSTONE COURT
CHESHIRE CT06410



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Rinker Design Associates, P.C.

General

SCC ID: 02270627
Entity Type: Corporation
Jurisdiction of Formation: VA
Date of Formation/Registration: 2/24/1982
Status: Active
Shares Authorized: 20000

Principal Office

9385 DISCOVERY BOULEVARD
SUITE 200
MANASSAS VA20109



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CES Consulting, LLC

General

SCC ID: S3416007
Entity Type: Limited Liability Company
Jurisdiction of Formation: VA
Date of Formation/Registration: 10/14/2010
Status: Active

Principal Office

23475 ROCK HAVEN WAY
SUITE 255
DULLES VA20166



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DMY ENGINEERING CONSULTANTS INC.

General

SCC ID: 07688955
Entity Type: Corporation
Jurisdiction of Formation: VA
Date of Formation/Registration: 9/6/2013
Status: Active
Shares Authorized: 10000

Principal Office

45662 TERMINAL DRIVE
SUITE 110
DULLES VA20166



FROEHLING & ROBERTSON, INCORPORATED

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Business Entities

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Court Services

Additional Services

General

SCC ID: 00272112
Entity Type: Corporation
Jurisdiction of Formation: VA
Date of Formation/Registration: 10/11/1924
Status: Active
Shares Authorized: 1100000

Principal Office

3015 DUMBARTON ROAD
HENRICO VA23228



WSP USA Inc.

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Business Entities

UCC or Tax Liens

Court Services

Additional Services

General

SCC ID: F0501603
Entity Type: Foreign Corporation
Jurisdiction of Formation: NY
Date of Formation/Registration: 2/11/1986
Status: Active
Shares Authorized: 30000

Principal Office

ONE PENN PLAZA
2ND FLOOR
NEW YORK NY10119

**FULL SIZE COPIES OF DPOR REGISTRATION
(OFFICES)**

The Lane Construction Corporation

DPOR License Lookup License Number 2701011871

License Details

Name	THE LANE CONSTRUCTION CORPORATION
DBA Name	VA SIGN AND LIGHTING COMPANY
License Number	2701011871
License Description	Contractor
Firm Type	Corporation
Rank ¹	Class A
Address	90 FIELDSTONE COURT, CHESHIRE, CT 06410
Specialties²	Commercial Building (CBC) Highway / Heavy (H/H) Residential Building (RBC)
Initial Certification Date	1972-10-12
Expiration Date	2020-01-31

DPOR License Lookup License Number 0407002174

License Details

Name	THE LANE CONSTRUCTION CORPORATION
License Number	0407002174
License Description	Business Entity Registration
Firm Type	Corporation
Rank	Business Entity
Address	14500 AVION PARKWAY STE 200, CHANTILLY, VA 20151
Initial Certification Date	1985-09-30
Expiration Date	2019-12-31

Rinker Design Associates, P.C. (RDA)

DPOR License Lookup License Number 0405000502

License Details

Name	RINKER DESIGN ASSOCIATES PC
License Number	0405000502
License Description	Professional Corporation Registration
Firm Type	Corporation
Rank	Professional Corporation
Address	9385 DISCOVERY BLVD, STE 200, MANASSAS, VA 20109
Initial Certification Date	1986-07-16
Expiration Date	2019-12-31

DPOR License Lookup License Number 0410000156

License Details

Name	RINKER DESIGN ASSOCIATES PC
License Number	0410000156
License Description	Professional Corporation Branch Office Registration
Firm Type	Corporation
Rank	Professional Corporation Branch Office
Address	927 MAPLE GROVE DR STE 105, FREDERICKSBURG, VA 22407
Initial Certification Date	2005-12-27
Expiration Date	2020-02-29

DPOR License Lookup License Number 0410000220

License Details

Name	RINKER DESIGN ASSOCIATES PC
License Number	0410000220
License Description	Professional Corporation Branch Office Registration
Firm Type	Corporation
Rank	Professional Corporation Branch Office
Address	4301 DOMINION BOULEVARD, SUITE 100, GLEN ALLEN, VA 23060
Initial Certification Date	2011-03-17
Expiration Date	2020-02-29

DPOR License Lookup License Number 0410000312

License Details

Name	RINKER DESIGN ASSOCIATES PC
License Number	0410000312
License Description	Professional Corporation Branch Office Registration
Firm Type	Corporation
Rank	Professional Corporation Branch Office
Address	4500 MAIN ST STE 310, VIRGINIA BEACH, VA 23462
Initial Certification Date	2019-01-31
Expiration Date	2020-02-29

DPOR License Lookup License Number 4008001801

License Details

Name	RINKER DESIGN ASSOCIATES P C
License Number	4008001801
License Description	Appraisal Business Registration
Firm Type	Corporation
Rank	Business Entity
Address	4301 DOMINION BLVD, STE 100, GLEN ALLEN, VA 23060
Initial Certification Date	2014-04-10
Expiration Date	2020-04-30

DPOR License Lookup License Number 4008001739

License Details

Name	RINKER DESIGN ASSOCIATES PC
License Number	4008001739
License Description	Appraisal Business Registration
Firm Type	Corporation
Rank	Business Entity
Address	927 MAPLE GROVE DR STE 105, FREDERICKSBURG, VA 22407
Initial Certification Date	2012-04-30
Expiration Date	2020-04-30

CES Consulting, LLC

DPOR License Lookup License Number 0407005783

License Details

Name	CES CONSULTING LLC
License Number	0407005783
License Description	Business Entity Registration
Firm Type	LLC - Limited Liability Company
Rank	Business Entity
Address	23475 ROCK HAVEN WAY SUITE 255, DULLES, VA 20166
Initial Certification Date	2010-11-05
Expiration Date	2019-12-31

DMY Engineering Consultants, Inc.

DPOR License Lookup License Number 0407005631

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

Froehling & Robertson, Inc.

DPOR License Lookup License Number 0411000050

License Details

Name	FROEHLING & ROBERTSON, INC
License Number	0411000050
License Description	Business Entity Branch Office Registration
Business Type	Corporation
Rank	Business Entity Branch Office
Address	10909 HOUSER DR, FREDERICKSBURG, VA 22408
Initial Certification Date	1992-04-08
Expiration Date	2020-02-29

WSP USA, Inc.

DPOR License Lookup License Number 0411000142

License Details

Name	WSP USA INC
License Number	0411000142
License Description	Business Entity Branch Office Registration
Business Type	Corporation
Rank	Business Entity Branch Office
Address	13530 DULLES TECHNOLOGY DR STE 300, HERNDON, VA 20171
Initial Certification Date	1997-03-18
Expiration Date	2020-02-29

**FULL SIZE COPIES OF DPOR REGISTRATION
(KEY PERSONNEL)**

KEY PERSONNEL DPOR

David Grey, PE (LANE)

DPOR License Lookup License Number 0402014687

License Details

Name	GREY, DAVID WISEMAN
License Number	0402014687
License Description	Professional Engineer License
Rank	Professional Engineer
Address	DAVIDSON, NC 28036
Initial Certification Date	1984-04-19
Expiration Date	2021-05-31

John Giometti, PE (RDA)

DPOR License Lookup License Number 0402032300

License Details

Name	GIOMETTI, JOHN A
License Number	0402032300
License Description	Professional Engineer License
Rank	Professional Engineer
Address	CULPEPER, VA 22701
Initial Certification Date	1998-07-16
Expiration Date	2020-07-31

Syed Khan, PE (CES)

DPOR License Lookup License Number 0402031057

License Details

Name	KHAN, SYED R
License Number	0402031057
License Description	Professional Engineer License
Rank	Professional Engineer
Address	CHANTILLY, VA 20152
Initial Certification Date	1997-05-01
Expiration Date	2021-07-31

Rex Gilley, PE (WSP)

DPOR License Lookup License Number 0402025213

License Details

Name	GILLEY, REX DARRIN
License Number	0402025213
License Description	Professional Engineer License
Rank	Professional Engineer
Address	VIRGINIA BEACH, VA 23457
Initial Certification Date	1994-06-24
Expiration Date	2020-06-30

Attachment 3.3.1
KEY PERSONNEL RESUMES

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.	
a. Name & Title: BRIAN BASNIGHT / SENIOR PROJECT MANAGER	
b. Project Assignment: DESIGN-BUILD PROJECT MANAGER	
c. Name of all Firms with which you are employed at the time of submitting SOQ's. In addition, please denote the type of employment (Full time/Part time): THE LANE CONSTRUCTION CORPORATION (FULL TIME)	
d. Employment History: With this Firm <u>7</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): Mr. Basnight has 35 years' experience in the construction industry. He has extensive experience on wide assortment of highway reconstruction projects, involving utility coordination, as well as environmental permitting and compliance, ranging in value from several thousand to over \$726M. The scopes of his projects have included bridge replacement, roadway widening and rehabilitation, dirt and rock excavation, blasting, excavation support, micro-piles, caissons, underground utilities, storm drainage, reinforced structural concrete, architectural concrete, concrete pavement, asphalt pavement, milling, traffic control, site electrical, and precast concrete. The Lane Construction Corporation, 2012–Present: Mr. Basnight, serves as a Senior Project Manager for LANE. Currently responsible for managing the entire construction process. His experience includes: managing the D-B construction process; cost control tracking; field layouts; survey; and safety implementation. He is accountable for all project QC activities, CPM scheduling, submittals, RFIs; progress reports, and subcontractor coordination. He has control over constructability reviews with the designer and VDOT to ensure all work meets approved construction plans and specifications. Mr. Basnight leads and implements safety initiatives, establishes project objectives, policies, procedures and performance standards, sets and monitors budgets, and assures that a quality management system is in place. Prior to his current role, Mr. Basnight served as a Construction Manager with LANE. Archer Western Contractors, 2007–2012: As Construction Manager, Mr. Basnight's responsibilities included overseeing daily construction and ensuring all materials used and work performed were in compliance with contract and specifications. He was additionally responsible for project cost, staffing, quality control, and scheduling. Mr. Basnight has extensive experience with bridge and other concrete structures, roadway, retaining walls, utility relocations, drainage, MOT, environmental controls, asphalt and concrete paving, and other heavy civil construction elements. E.V. Williams, 2004–2007: As a Construction Manager/Engineer, Mr. Basnight's responsibilities included overseeing daily construction activities and ensuring all materials used and work performed was in compliance with specifications. Also, responsible for project cost, staffing, quality control, and scheduling. Mr. Basnight served as Construction Manager and Field Engineer on projects throughout the Hampton Roads area.	
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: University of North Carolina, Chapel Hill, NC / M.S. / 1992 / Civil Engineering; University of North Carolina, Chapel Hill, NC / B.S. / 1990 / Civil Engineering	
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. <i>Note your role, responsibility, and specific job duties for each project, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i> (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.) * On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.	
Transurban, 395 Express Lanes Extension, from Alexandria to Washington, DC (DESIGN-BUILD)	
Name of Firm: The Lane Construction Corporation	Project Role: Design-Build Project Manager
Beginning Date: 01/2019	End Date: 10/2019
Specific Responsibilities: As DBPM, Mr. Basnight is responsible for the overall project design and construction. He supervises and manages the design, construction, quality management, contract administration and other services required by the contract, including the procurement and timely delivery of all materials, equipment, services and labor. Mr. Basnight ensures all contract obligations are met and avoids and/or resolves disputes in accordance with contract documents. He also coordinates public outreach and public meetings.	
Project Relevance: This \$336M D-B project extends the 395 Express Lanes from Fairfax County through Alexandria and Arlington in Virginia to the Washington, D.C. line. The toll lanes will be extended for eight miles north from Turkeycock Run near Edsall Road in Alexandria to the vicinity of Eads Street in Arlington near the Pentagon. The project will add a third reversible	

HOT lane on I-395, accessible for free by vehicles with three or more occupants and an E-ZPass Flex transponder, or for a toll by all others. The improvements primarily are being built within the existing footprint of the I-395 HOV lanes. The project will provide more options for faster and more reliable travel in one of the most heavily traveled corridors in the country and expand the region's network of express lanes. **Relevant scope of work to the I-95 NB RRC project includes:** Roadway, Survey, Structures/Bridges, Environmental, Geotechnical, Hydraulics, Traffic Control Devices, Transportation Management Plan, Right-Of-Way, Utilities, Public Involvement/ Relations, Quality Assurance and Quality Control, Intelligence Transportation Systems, Construction Engineering and Inspection, and Overall Project Management.

VDOT, 95 Express Lanes, Fairfax County to Stafford County, VA (DESIGN-BUILD)

Name of Firm: The Lane Construction Corporation	Project Role: Construction Manager (Area 1/Bridge)
Beginning Date: 10/2012	End Date: 01/2014

Specific Responsibilities: Mr. Basnight's role as Construction Manager for the I-95 NB RRC project is similar to the role he held on the I-95 Express Lanes D-B project. Mr. Basnight was responsible for the management of the construction process which included the QC program, project schedules, cost control, subcontractor coordination, work plans, and specific means/methods for carrying out the work. He was responsible for ensuring the materials used and work performed met contract requirements and the "approved for construction" plans and specifications. Mr. Basnight had extensive involvement with the complex MOT plans and implementation, relocation, adjustments, and coordination of utilities, and helped address environmental concerns (this project has been lauded for its landscaping and environmental measures). Mr. Basnight was full time/on-site throughout the construction phase.

Project Relevance: This \$726M D-B project created 29 miles of Express Lanes on I-95 from Alexandria to Stafford. A nine-mile reversible two-lane extension of the existing HOV lanes helps alleviate some of the worst traffic on one of the most heavily travelled and congested urban corridors in the United States. The greatest similarity to the proposed project was the median work zone in a high traffic area where Mr. Basnight helped to successfully deliver this important fast track project under budget, under schedule and no recordable safety incidents with over 4,000,000 manhours worked. Like the I-95 NB RRC project, the 95 Express Lanes included extensive MOT plans, utility relocation efforts (including past identification and data gathering), review of design concepts against existing utilities, determination of mitigation measures, and ongoing coordination with utility companies. The project involved comprehensive public relations with over 365 outreach meetings held during the course of the project. The project received ARTBA's Safest Project of the Year, ENR's Project of the Year in the Mid-Atlantic, and P3 Highway Project of the Year finalist. **Relevant scope of work to the I-95 NB RRC project includes:** Roadway, Survey, Structures/Bridges, Environmental, Geotechnical, Hydraulics, Traffic Control Devices, Transportation Management Plan, Right-Of-Way, Utilities, Public Involvement/ Relations, Quality Assurance and Quality Control, Intelligence Transportation Systems, Construction Engineering and Inspection, and Overall Project Management.

VDOT, I-95 Bridge Restoration, Richmond, VA (DESIGN-BUILD)

Name of Firm: Archer Western	Project Role: Construction Manager
Beginning Date: 06/2010	End Date: 06/2012

Specific Responsibilities: As Construction Manager, Mr. Basnight was responsible for the management of the construction process which included the QC program, project schedules, cost control, subcontractors, work plans, and specific means/methods for carrying out the work. He was responsible for ensuring the materials used and work performed met contract requirements and the "approved for construction" plans and specifications. He also supervised all billing, pay requests, change orders, contracts, pay estimates, submittals, schedule updates, cost report quantities, revenue, and forecasting costs.

Project Relevance: This \$85M D-B project used the Accelerated Bridge Construction (ABC) technology to reduce impacts on I-95 travelers by moving the assembly of 234 pre-cast bridge units offsite. When the units were ready to be installed, the 50-120-ton concrete sections were transported to the project site by truck. Existing bridge decks and beams were removed and the pre-cast units were set in place and secured. The work usually took place overnight so traffic patterns were returned to normal by morning. **Relevant scope of work to the I-95 NB RRC project includes:** Roadway, Survey, Structures/Bridges, Environmental, Geotechnical, Hydraulics, Traffic Control Devices, Transportation Management Plan, Right-Of-Way, Utilities, Public Involvement/ Relations, Quality Assurance and Quality Control, Intelligence Transportation Systems, Construction Engineering and Inspection, and Overall Project Management.

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. **N/A**

ATTACHMENT 3.3.1
KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.	
a. Name & Title: DAVID GREY, PE / SENIOR ENGINEERING DIRECTOR	
b. Project Assignment: ENTRUSTED ENGINEER IN CHARGE (EIC)	
c. Name of all Firms with which you are employed at the time of submitting SOQ's. In addition, please denote the type of employment (Full time/Part time): THE LANE CONSTRUCTION CORPORATION (PART TIME)	
<p>d. Employment History: With this Firm 11 Years With Other Firms 29 Years</p> <p>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):</p> <p>Mr. Grey brings over 40 years of experience and has been instrumental in LANE's D-B experience throughout North America. His hands-on D-B experience includes serving as Project Manager on over \$450M in alternative delivery, best value contracts. Prior to joining LANE, Mr. Grey led all D-B at risk operations for HDR Engineering. He provided constructability reviews, construction phasing, cost estimating, scheduling, and value engineering.</p> <p>The Lane Construction Corporation, 2019-Present: Mr. Grey currently serves as a Senior Engineering Director for Lane Construction Corporation providing engineering support to large D-B projects along the Mid-Atlantic.</p> <p>The Lane Construction Corporation, 2012-2019: Mr. Grey served as a Senior Engineer/ National Pursuit Manager for Lane Construction Corporation with responsibility for D-B and P3 pursuits.</p> <p>The Lane Construction Corporation, 2008-2012: Mr. Grey served as District Manager for D-B projects, bridge construction division, major project estimating and prestress concrete operations.</p> <p>HDR Engineering, 2004-2008: As Vice President of Transportation, Mr. Grey was responsible for all the company's at-risk D-B Transportation pursuits. His responsibilities included business development, and project oversight for all transportation Design-Build projects. He also provided constructability reviews, construction phasing, cost estimating, scheduling and value engineering throughout the US. He also participated in four CEVP studies for Utah DOT on projects in the Salt Lake City area.</p>	
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: University of North Carolina, Charlotte, NC/ BS/ 1975/ B.S. Engineering	
f. Active Registration: Year First Registered/ Discipline/VA Registration #: 1984/Professional Engineer/Virginia/ 0402014687	
<p>g. Document the extent and depth of your experience and qualifications relevant to the Project.</p> <ol style="list-style-type: none"> <i>Note your role, responsibility, and specific job duties for each project, not those of the firm.</i> <i>Note whether experience is with current firm or with other firm.</i> <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i> <p>(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.)</p> <p>* On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.</p>	
NCDOT, I-85 Yadkin River Bridge, Rowan & Davidson Counties, NC (DESIGN-BUILD)	
Name of Firm: The Lane Construction Corporation	Project Role: District Manager
Beginning Date: 06/2010	End Date: 12/2013
<p>Specific Responsibilities: Mr. Grey was responsible for the overall project delivery of this \$136 million reconstruction and widening project. Mr. Grey worked with both the design and construction team to ensure the project delivered to NCDOT met and/or exceeded their expectations and requirements. He was fully integrated among the project team and provided supervisory direction in approving engineering decisions during construction. Mr. Grey communicated regularly with NCDOT and was vested with the authority to act on the behalf of the D-B team. A critical aspect of the project was maintenance of traffic (MOT) during construction and incident management. Mr. Grey oversaw the development and implementation of the MOT plan that placed great emphasis on separating construction from highway traffic, including a hauling plan that effectively separated haul vehicles from I-85 as much as possible. He also oversaw the development and implementation of an incident management plan (IMP) that addressed issues such as well-defined detour routing for major traffic incidents, on-site wrecker service for attending to crash sites, and close coordination with the Department of Motor Vehicles. The program was a huge success, there were no serious or fatal crashes during three years of interstate construction.</p> <p>Project Relevance: The project included the widening of a 3-mile-long stretch of I-85 roadway to from four to eight lanes and the construction of six new bridges, including the 3,000-foot-long dual bridges over the Yadkin River, wetlands, and Norfolk Southern Railway and the North Carolina Railroad. The firm also designed the major reconstruction of the US 29/70 and NC 150 interchange, and relocation of the road from north of SR 2120 (Long Ferry Road) to south of the existing NC 150 flyover bridge. This corridor is the most direct and heavily traveled route between Richmond, VA and Atlanta, GA carrying nearly 70,000 vehicles each day. A complex phasing plan was required in order to maintain traffic during the replacement of the existing bridge carrying I-85 over the</p>	

**ATTACHMENT 3.3.1
KEY PERSONNEL RESUME FORM**

Yadkin River. This included shifts, major bridge designs, and extensive collaboration between team members. After the northbound lanes were constructed, all traffic was moved onto the northbound side of I-85 for construction of the southbound lanes. The new dual bridges span a wetland, river, and three railroad tracks. The structures span two Norfolk Southern Railway main line tracks, as well as a future freight and Atlanta-to-Washington high-speed rail line. Coordination efforts involved plan approval for bridge work and the proposed relocation of an at-grade crossing. The increased span of the new parallel bridges will provide room for future rail improvements. To maximize the efficiency of the bridge design, the team chose a modified 77-inch-deep bulb-T, prestressed concrete beam for all concrete spans. To eliminate the need for bridge overhang falsework, the team implemented a special edge beam that also served as the formwork for the deck slab overhang. The team discovered that by slightly widening the median of the bridge to 70 feet, that a single work bridge could be constructed in the center median, reducing project cost, timeframe, and environmental impacts. **Relevant scope of work to the Proposed I-95 NB Rappahannock River Crossing project include:** Roadway, survey, structures, bridges, environmental, geotechnical, hydraulics, traffic control devices, transportation management plan, right of way, utilities, public involvement/ relations, QA/QC, ITS, construction engineering and inspection; and overall project management.

NCDOT, I-85/I-485 Turbine Interchange, Mecklenburg County, NC (DESIGN-BUILD)

Name of Firm:	The Lane Construction Corporation	Project Role:	Design-Build Project Manager
Beginning Date:	10/2011	End Date:	12/2014

Specific Responsibilities: Mr. Grey was the DBPM on this \$98M D-B project. Mr. Grey was responsible for design and construction for the entire project. As DBPM, Mr. Grey was responsible for the project design and construction. Mr. Grey was fully integrated among the project team which included subcontractors and subconsultants. He provided supervisory direction on engineering decisions during construction. Mr. Grey was knowledgeable and proficient on engineering decisions related to design and/or construction. Mr. Grey communicated regularly with the Owner and had authority to act on behalf of LANE and shut down the project (not necessary on this project). Mr. Grey also ensured that engineering services were performed by qualified and licensed professionals and that plans were signed and sealed by such qualified professionals consistent with applicable licensing regulations by the NCBELS. Mr. Grey communicated frequently with the DM, CM and Quality personnel.

Project Relevance: Project consists of the design and construction of the interchange of Interstate 85 and Interstate 485 (Charlotte Outer Eastern Loop). The existing I- 85/I-485 Interchange was modified to a turbine interchange that utilizes smaller, single-span bridges, smaller columns and flatter roadway profiles. Under Mr. Grey’s direction, during the proposal phase, the team proposed a two level “turbine” interchange design rather than NCDOT’s originally four-level “stack” type directional interchange with high-speed ramps. The team identified significant potential safety and constructability issues with NCDOT’s original proposed interchange. The innovative concept greatly reduced the construction work performed and significantly improved safety, in addition to reducing costs to the point of eliminating the need for gap financing. The first of its kind in North Carolina, and extremely uncommon in the United States, the turbine interchange design circles all left-turning traffic around a central bridge in a counter clockwise direction, creating a seamless movement between the two highways. **Relevant scope of work to the Proposed I-95 NB Rappahannock River Crossing project include:** Roadway, survey, structures, bridges, environmental, geotechnical, hydraulics, traffic control devices, transportation management plan, right of way, utilities, public involvement/ relations, QA/QC, ITS, construction engineering and inspection; and overall project management.

NCDOT, Bridge Over the Tar River, Pitt County, NC

Name of Firm:	The Lane Construction Corporation	Project Role:	District Manager
Beginning Date:	04/2009	End Date:	12/2011

Specific Responsibilities: As District Manager, Mr. Grey was responsible for the overall project construction. Mr. Grey was fully integrated among the project team which included subcontractors and subconsultants. He provided supervisory direction on engineering decisions during construction. Mr. Grey was knowledgeable and proficient on engineering decisions related to design and construction. Mr. Grey communicated regularly with the Owner and had authority to act on behalf of LANE and shut down the project (not necessary on this project).

Project Relevance: Project included the construction of a 1,963-foot-long bridge over a navigable waterway with ship impact provisions. Work was performed from a 1,900-foot-long work trestle. The bridge was founded on a combination of H-pile, pipe pile, and drilled shafts. The project also involved the removal of the existing structure, which included a movable span. The Tar River Bridge design features a “top down” construction method divided into two work segments, north and south of the Tar River. The equipment consisted of two custom-built overhead self-launching truss systems, each approximately 450 ft. long. Each system was designed to be a totally self-contained bridge-building machine. It was capable of driving piles, erecting the bent caps, erecting the girders, and pouring the deck. This eliminated the need to erect a temporary work bridge along the length of the bridge with the goal of streamlining the construction sequencing, reducing the construction costs, minimizing wetland impacts, and eliminating temporary wetland impacts from any work bridges. **Relevant scope of work to the Proposed I-95 NB Rappahannock River Crossing project include:** Roadway, survey, structures, bridges, environmental, geotechnical, hydraulics, traffic control devices, transportation management plan, right of way, utilities, public involvement/ relations, QA/QC, ITS, construction engineering and inspection; and overall project management.

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. *N/A*

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.
a. Name & Title: SYED KHAN, PE, CCM, DBIA / QUALITY ASSURANCE MANAGER (QAM)
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): CES CONSULTING, LLC (FULL TIME)
d. Employment History: With this Firm 5 Years With Other Firms 31 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): CES Consulting LLC, 2013–Present: Quality Assurance Manager - Mr. Khan is a licensed Professional Engineer and a certified Design-Build professional (DBIA) who has more than 35 years of professional experience in managing D-B and Traditional transportation projects, currently overseeing D-B projects pursued by CES. He has used his extensive QA and QC management experience for successful completion of numerous projects throughout Virginia. Mr. Khan has managed highways and bridge construction projects in various capacities from developing Project QA and QC plans, developing standardized documents to maintaining auditable testing records, developing audit criteria and frequencies, creating ties between project schedule activities and quality documents, establishing logs to track and monitor testing requirements and directing the staff in pursuing QA and/or QC duties. Parsons Brinkerhoff, 2011–2013: Area Manager/QC Manager - Mr. Khan was responsible for overseeing Quality Assurance Management as well as coordinating the design management, construction contract procurement, construction management, handing over and overseeing the defect liability period and final handing over of roads and drainage projects. He led all coordination efforts with other functional groups in the program management organization such as design specialists, project controls, contract management, claims specialists, construction supervision staff and the client for delivering the projects. The construction value of the projects was approximately \$500M. Yas Island, 2007–2011: Deputy Director - Responsible for the development of Infrastructure projects at Yas Island, Mr. Khan was directly responsible for the design, procurement, and Quality Control Management of the following transportation and utilities projects on Yas Island: A 15 mile, 10-lane freeway with several interchanges, roads and waterway crossings connecting Yas Island to Mina Zayed via Saadiyat Island, Design & Construction of an underwater tunnel (0.8 miles long) connecting Yas Island to Raha Beach; and construction of all internal roads, surface parking lots, and multilevel parking structures. The total value of the projects was approximately \$1B. Parsons Transportation Group, 2004–2007: Senior Construction Manager – Mr. Khan was responsible for the projects under the transportation improvement program which included construction of highways, interchanges, new bridges, widening of existing bridges, roadway widening, and installation of drainage pipes, extensive ITS/TMS work and overhead signs. Mr. Khan managed CEI Staff, for the oversight of all testing, documentation and payment of work on site, working with FHWA/Design Engineer/Contractor to resolve field construction issues. He enforced specifications/standards and ensured that all Non-Conforming Work was properly documented through NCR and remediated and closed out. AS RE, Mr. Khan also ensured that all work orders, pay estimates & project closeouts are done as per Quality Control and Quality Assurance procedures. The total value of projects managed under the program is approximately \$400M.
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: State University of New York at Buffalo/ MS Civil Engineering / 1989/ Construction Management; NED University of Engineering & Technology, Pakistan/ BS/ 1981/ Civil Engineering
f. Active Registration: Year First Registered/ Discipline/VA Registration #: 2019 Commonwealth of VA Professional Engineer #31057; Certified Construction Manager, CCM; PMP; DBIA; VDOT Certifications: Pavement Marking (2018); Asphalt Field Levels I & II (2018); Others: DCR/DEQ Erosion & Sediment Control (2017); Intermediate Work Zone Traffic Control (2017); Nuclear Gauge Safety (2016); ACI Concrete Field (2018); OSHA 10-hour.
g. Document the extent and depth of your experience and qualifications relevant to the Project. <ol style="list-style-type: none">1. <i>Note your role, responsibility, and specific job duties for each project, not those of the firm.</i>2. <i>Note whether experience is with current firm or with other firm.</i>3. <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i> (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.) * On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.

VDOT, I-66 Eastbound Inside the Beltway, Fairfax & Arlington Counties, VA		(DESIGN-BUILD)	
Name of Firm: CES Consulting, LLC	Project Role: Quality Assurance Manager	Beginning Date: 03/2018	End Date: Present (Anticipated 10/2021)
<p>Specific Responsibilities: As Quality Assurance Manager for this \$86M project, currently under construction by LANE and designed by RDA, Mr. Khan is responsible for ensuring execution of the project QA/QC plan by the contractor/QC/QA personnel, adherence to the VDOT 2018 QA/QC requirements and working with the contractor to proactively resolve deficiencies and NCRs at the lowest level and overall project administration to reassure VDOT that the D-B process is working per VDOT policy and procedures.</p> <p>Project Relevance: The I-66 Eastbound Inside the Beltway D-B project will add an additional travel lane along approximately four miles of eastbound I-66 from the Dulles Connector Road to Fairfax Drive (Exit 71), provide a new ramp to ramp direct access connection from EB I-66 to the West Falls Church Metro Station at the Route 7 Interchange and provide a new bridge for the W&OD Trail over Lee Highway, providing safe access for cyclists and pedestrians.</p> <p>Relevant scope of work to the Proposed I-95 NB Rappahannock River Crossing project include: Roadway, survey, structures, bridges, environmental, geotechnical, hydraulics, traffic control devices, transportation management plan, right of way, utilities, public involvement/ relations, QA/QC, ITS, construction engineering and inspection; and overall project management.</p>			
VDOT, I-66 Spot 2 Improvements, Fairfax County, VA			
Name of Firm: CES Consulting, LLC	Project Role: Senior Construction Manager	Beginning Date: 11/2014	End Date: 08/2016
<p>Specific Responsibilities: As Senior Construction Manager for this project under contract with VDOT and constructed by LANE, Mr. Khan was responsible for overseeing all office engineering and inspection efforts to assure contractor compliance with respect to VDOT R&B Specifications and Standards. Worked with contractor to resolve field construction conflicts and provide technical solutions to VDOT for consideration and approval. Reviewed and approved RFIs, change orders and baseline/monthly schedule updates. Ensured that all project documentation was CQIP compliant and ready for VDOT audit.</p> <p>Project Relevance: This \$33M project entailed the construction of a westbound acceleration-deceleration lane between Haycock Road and Westmoreland Street. Relevant scope of work to the Proposed I-95 NB Rappahannock River Crossing project included: Roadway, survey, structures, bridges, environmental, geotechnical, hydraulics, traffic control devices, transportation management plan, right of way, utilities, public involvement/ relations, QA/QC, ITS, construction engineering and inspection; and overall project management. Extensive MOT work through multiple phased construction, Interstate corridor lighting, ITS communication equipment/duct bank installation and relocation, variable message boards and close coordination with stakeholder to ensure compliance with their operations and procedures.</p>			
VDOT, I-95 Auxiliary Lane and Shoulder Safety Improvements, Prince William County, VA			
Name of Firm: CES Consulting, LLC	Project Role: Senior Construction Manager	Beginning Date: 09/2016	End Date: 10/2017
<p>Specific Responsibilities: As the Senior Construction Manager/Assistant Responsible Charge Engineer managed the entire construction operations of the contractor (LANE) on this important shoulder widening project on NB and SB I-95. Managed the CEI staff of more than 10 managers and inspectors; served as technical resource for field and design issues, such as reviewing and distributing RFIs for speedy review and approval; reviewed and negotiated change orders to build new bridges and worked with design engineers to expedite design; coordinated with the I-95 Express Lane contractor to ensure compliance with the TMP and efficient resolution of MOT issues; monitored schedule; and reviewed and managed final project closeout.</p> <p>Project Relevance: This \$40M project involved construction of auxiliary lanes and widening of the shoulders along a seven-mile stretch of I-95, to create the auxiliary lanes, crews extended the acceleration and deceleration lanes between on- and off-ramps. The team widened shoulders to 12 feet with full-depth pavement to make it suitable for traffic use during accidents, evacuation, enforcement and detours, Also, new guardrails and lighting were installed. Relevant scope of work to the Proposed I-95 NB Rappahannock River Crossing project included: Roadway, survey, structures, bridges, environmental, geotechnical, hydraulics, traffic control devices, transportation management plan, right of way, utilities, QA/QC, ITS, construction engineering and inspection; and overall project management.</p>			
<p>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. Current Assignment: I-66 Eastbound Inside the Beltway Project Role: QAM (Not Full-time) Duration of Assignment: Anticipated completion date is 10/2021. Mr. Khan will be available for the I-95 Northbound Rappahannock River Crossing project upon contract award.</p>			

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.	
a. Name & Title: JOHN GIOMETTI, PE / VICE PRESIDENT OF TRANSPORTATION	
b. Project Assignment: DESIGN MANAGER	
c. Name of all Firms with which you are employed at the time of submitting SOQ's. In addition, please denote the type of employment (Full time/Part time): RINKER DESIGN ASSOCIATES, P.C. (FULL TIME)	
<p>d. Employment History: With this Firm 6 Years With Other Firms 25 Years</p> <p>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):</p> <p>Rinker Design Associates, P.C., 2013-Present: Vice President of Transportation – Mr. Giometti is responsible for allocating, overseeing, and managing all designs performed/managed in the Fredericksburg and Manassas Offices, and all sub-consultants on those projects. Design elements managed include roadway design, hydrology/hydraulic analysis, traffic analysis and design, construction plan preparation, ROW acquisition, utility coordination/design, environmental permitting/environmental compliance, and structural design. Furthermore, his duties include development and implementation of the design QA/QC programs for D-B projects and coordination with clients to ensure goals are met and quality is achieved. Responsible for staffing projects; hiring sub-consultants; negotiating contracts with clients, contractors, and sub-consultants; and project scheduling to ensure on-time/on-budget performance.</p> <p>Virginia Department of Transportation (VDOT), 2004-2013: Culpeper District Location and Design Engineer – Mr. Giometti was responsible for survey, hydraulic design, roadway design, and project management teams for highway design projects. He was responsible for providing guidance to staff, consultants, and developers in the application of VDOT and AASHTO design standards including approval of appropriate design waivers and recommendations for design exceptions. He was also responsible for developing schedules and budgets for VDOT's annual Six Year Plan updates, establishing resource needs, value engineering, developing context sensitive solutions, interfacing with citizens, community groups, leaders, elected officials, and various public agencies. Mr. Giometti carried out his duties while maintaining up-to-date schedules and budgets, monitoring consultant performance, and ensuring QA/QC protocols were followed.</p>	
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: Virginia Polytechnic Institute and State University, Blacksburg, VA / BS / 1988 / Civil Engineering	
f. Active Registration: Year First Registered/ Discipline/VA Registration #: 1998 / Professional Engineer / #0402032300	
<p>g. Document the extent and depth of your experience and qualifications relevant to the Project.</p> <ol style="list-style-type: none"> <i>Note your role, responsibility, and specific job duties for each project, not those of the firm.</i> <i>Note whether experience is with current firm or with other firm.</i> <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i> <p>(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.)</p> <p>* On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.</p>	
VDOT, I-66 Eastbound Widening Inside the Beltway, Fairfax & Arlington Counties, VA (DESIGN-BUILD)	
Name of Firm: Rinker Design Associates, P.C.	Project Role: Assistant Design Manager
Beginning Date: 04/2018	End Date: 06/2019 (est. Design complete)
<p>Specific Responsibilities: Assistant Design Manager for the widening of the eastbound lanes of I-66 and auxiliary lane/direct access ramp to the West Falls Church Metro Garage. The project includes ramp modifications; bridge rehabilitations, repairs, and widenings; retaining walls; lighting; ITS; landscaping; noise barriers; and a new grade-separated crossing of the Washington & Old Dominion Trail at Lee Highway. He is responsible for managing the design of roadway, TMP/MOT, bridges, traffic signals, noise barriers, and trail modifications. Responsibilities also include oversight of utility design and relocation coordination, ROW acquisition, public involvement, and QA/QC.</p> <p>Project Relevance: Mr. Giometti oversees all QA/QC for this \$86M D-B project, which widens a heavily congested, interstate, commuter corridor. In addition, his management of roadway geometric design has proven critical to the preservation of existing pavement, retaining walls, and noise barriers throughout the project that would otherwise have impacted park lands and increased costs. To save costs and improve efficiencies of construction, Mr. Giometti shifted the roadway alignment through the park property toward the median which eliminated reconstruction of significant retaining wall, reduced impacts on the park, and provided a better sequencing for construction. Overall, Mr. Giometti ensures that the design of the project conforms to the requirements established</p>	

in the contract. **Relevant scope of work to the Proposed I-95 NB Rappahannock River Crossing project include:** Roadway, survey, structures, bridges, environmental, geotechnical, hydraulics, traffic control devices, transportation management plan, right of way, utilities, public involvement/ relations, QA/QC, ITS, construction engineering and inspection; and overall project management.

VDOT, Route 29 Solutions, Albemarle County, VA (DESIGN-BUILD)

Name of Firm: Rinker Design Associates, P.C.	Project Role: Design Manager – 29 Widening Element
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Beginning Date: 01/2015	End Date: 11/2015 (Design complete)
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Specific Responsibilities: As Design Manager, Mr. Giometti was responsible for the design, management, and QA/QC for complete roadway construction plans, as well as coordinating and addressing RFIs and Shop Drawing Reviews for the widening of Route 29 to six lanes divided. His role also included coordination of roadway design technical issues, survey, ROW acquisition, and utility coordination across all three projects (the Rio GSI, 29 Widening, and Berkmar Drive). Project responsibilities included design oversight of roadway, hydraulics, and TMP. He was responsible for coordinating with the contractor (during design and during construction), VDOT, geotechnical engineers, and traffic/ITS engineers to ensure that the design requirements of the contract were met and to expedite the design and associated services. He also coordinated routinely with the project’s public relations Manager to ensure timely and accurate information was disseminated to the public. During construction, Mr. Giometti provided field engineering decisions to assist the contractor in addressing differing conditions as well how to correct non-conforming construction elements. In several cases, the field coordination resulted in plan revisions to better align with the field conditions and best means and methods of construction.

Project Relevance: Similar to the proposed I-95 NB RRC project, this \$117M D-B project consisted of the development of roadway widening along a congested corridor. Mr. Giometti oversaw RDA’s efforts to integrate utility relocations and betterment plans with the roadway design, which drove the MOT and construction sequencing due to the limited space in the corridor. He also managed QA/QC of design plans, ensuring constructability and compliance with VDOT regulations and requirements. To reduce costs (including future maintenance costs), Mr. Giometti revamped the design approach to widen to the median - avoiding power transmission lines and eliminating over 1,500 feet of retaining wall. **Relevant scope of work to the Proposed I-95 NB Rappahannock River Crossing project include:** Roadway, survey, structures, environmental, geotechnical, hydraulics, traffic control devices, transportation management plan, right of way, utilities, public involvement/ relations, QA/QC, construction engineering and inspection; and overall project management.

Stafford County, Garrisonville Road (Route 610) Widening, Stafford County, VA (DESIGN-BUILD)

Name of Firm: Rinker Design Associates, P.C.	Project Role: Design Manager
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Beginning Date: 11/2013	End Date: 12/2015 (Design complete)
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Specific Responsibilities: Design Manager for widening of a busy commercial corridor to six lanes divided. Project included curb and gutter, sidewalks, and new traffic signals. Extensive effort and creativity was necessary to minimize and mitigate impacts to commercial property parking throughout the corridor. He was responsible for the design management and design QA/QC for complete construction plans to include: roadway and drainage design; traffic engineering; TMP/MOT; E&S; environmental permitting; and geotechnical analysis coordination. Responsibilities also included utility coordination, public involvement, and management of sub-consultants. He worked directly with construction staff to develop the TMP to address specific sequencing needs and construction means and methods.

Project Relevance: Mr. Giometti managed the design and QA/QC of this \$13M D-B project, which consisted of the development of roadway design for a highly congested urban roadway in the I-95 corridor. His coordination of TMP design ensured driver and personnel safety through construction. He certified strict adherence to County regulations and schedules while maintaining close coordination with sub-consultants, which was critical to ensure timely delivery of the final design. **Relevant scope of work to the Proposed I-95 NB Rappahannock River Crossing project include:** Roadway, survey, structures, environmental, geotechnical, hydraulics, traffic control devices, transportation management plan, right of way, utilities, public involvement/ relations, QA/QC, construction engineering and inspection; and overall project management.

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. **N/A**

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.
a. Name & Title: DAVE REYNOLDS / PROJECT MANAGER
b. Project Assignment: CONSTRUCTION MANAGER
c. Name of all Firms with which you are employed at the time of submitting SOQ's. In addition, please denote the type of employment (Full time/Part time): THE LANE CONSTRUCTION CORPORATION (FULL TIME)
d. Employment History: With this Firm <u>11</u> Years With Other Firms <u>29</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): Mr. Reynolds has over 40 years' experience in the construction industry. He is experienced with VDOT procedures and specifications, permit acquisition and modification, CPM scheduling, owner and construction coordination, leading constructability reviews, RFIs in construction, MOT plan modifications, E&S modifications, ROW coordination as well as all disciplines of civil construction, including leading the construction of the project from beginning to end. The Lane Construction Corporation, 2008–Present: As a Project Manager for LANE, Mr. Reynolds responsibilities include directly supervising and coordinating the construction phases of work. In the design phase, Mr. Reynolds collaborates with the design team to provide input on constructability, availability of materials, and project phasing to maximize mobility and schedule improvements with an eye toward constructing the project in the most efficient and fastest way possible. During the construction phase, Mr. Reynolds is responsible for overseeing operations; coordinating the buyout and delivery of materials, planning and controlling all aspects of the sequence of construction, including layout, subcontractors, work plans, and management of LANE crews. He hosts partnering meetings, coordination meetings and pre-work meetings with the Administration. Mr. Reynolds ensures that the project goals and key issues are achieved per the plan developed in partnership with VDOT during the initial phases of the design. Contour Construction, 2007–2008: As a Construction Manager/Superintendent, Mr. Reynolds responsibilities included directly supervising and coordinating the construction phases of work for the rehabilitation of 4.4 Kilometers of Roadway. This included coordination with NYSDOT and attending all daily and weekly meetings. Mr. Reynolds was responsible for overseeing operations, project layout, daily safety meetings, subcontractor coordination, self-performed site cuts and fills, paving operations, and on site crushing and screening. Boland's Excavating, 2004–2006: As a Superintendent, Mr. Reynolds responsibilities included overseeing operations, including procurement of materials, subcontractors, survey requirements, and CPM schedules. The Projects included athletic fields for Cornell University, Sidney Central Schools, and Afton Central Schools. The installation of an entire water system for the Town of Newfield Water District in Ithaca, NY. Mr. Reynolds was responsible for coordinating meetings with University, School, and Town officials to ensure project goals, schedules, environmental concerns, and all key issues were achieved.
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: Ithaca College and Cortland State University, Ithaca, NY / 1982 / Business Administration
f. Active Registration: Year First Registered/ Discipline/VA Registration #: N/A 10 Hour OSHA training, Trench and Excavation Competent Person training, 40 Hour Hazardous Material Training, Rigging training, Confined Space training.
g. Document the extent and depth of your experience and qualifications relevant to the Project. 1. <i>Note your role, responsibility, and specific job duties for each project, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i> (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.) * On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.

Transurban, 395 Express Lanes Extension, from Alexandria, VA to Washington, DC		(DESIGN-BUILD)	
Name of Firm:	The Lane Construction Corporation	Project Role:	Construction Manager
Beginning Date:	05/2018	End Date:	10/2019
<p>Specific Responsibilities: Mr. Reynolds responsibilities as Construction Manager are overseeing the QA/QC and survey staff, all structure and bridge related activities including Hydro and Latex installation, supervision of all Lane crews and subcontractors, coordination and supervision of roadway and utility installation, environmental compliance; traffic control plan review and compliance, weekly meetings with public relations, daily meetings with VDOT and Transurban, and three-week look ahead scheduling.</p> <p>Project Relevance: This \$336M D-B project extends the 395 Express Lanes from Fairfax County through Alexandria and Arlington in Virginia to the Washington, D.C. line. The toll lanes will be extended for eight miles north from Turkeycock Run near Edsall Road in Alexandria to the vicinity of Eads Street in Arlington near the Pentagon. The project will add a third reversible HOT lane on I-395, accessible for free by vehicles with three or more occupants and an E-ZPass Flex transponder, or for a toll by all others. The improvements primarily are being built within the existing footprint of the I-395 HOV lanes. The project will provide more options for faster and more reliable travel in one of the most heavily traveled corridors in the country and expand the region's network of express lanes. Relevant scope of work to the Proposed I-95 NB Rappahannock River Crossing project include: Roadway, survey, structures, bridges, environmental, geotechnical, hydraulics, traffic control devices, transportation management plan, right of way, utilities, public involvement/ relations, QA/QC, ITS, construction engineering and inspection; and overall project management.</p>			
PennDOT, SR 65 Fort Duquesne Bridge, Pittsburg, PA			
Name of Firm:	The Lane Construction Corporation	Project Role:	Project Manager
Beginning Date:	04/2016	End Date:	02/2018
<p>Specific Responsibilities: Mr. Reynolds responsibilities included to oversee project team, attend project meetings with PennDOT, City of Pittsburgh, Pittsburgh Steeler Officials, Pittsburgh Pirate officials, and other local agencies. Coordinate and manage all construction activities including subcontractors, Vendors, Budget, schedule, Safety and Environmental Plans and Policies. Oversee the timely completion of 37 Milestone dates and the completion of Bridge deck removal and replacement. Also the rehabilitation of bridge decks including Hydro and Latex overlay.</p> <p>Project Relevance: This \$25M project consisted of bituminous milling and resurfacing, concrete pavement patching with bituminous overlay, concrete pavement reconstruction, drainage, guide rail, curb, shoulder reconstruction, highway lighting, signing and pavement markings, traffic signals, structure work to numerous bridges, painting of structural steel, retaining wall and tunnel spall repairs.</p> <p>Relevant scope of work to the Proposed I-95 NB Rappahannock River Crossing project included: Roadway, survey, structures, bridges, environmental, geotechnical, traffic control devices, transportation management plan, right of way, utilities, public involvement/ relations, QA/QC, ITS, construction engineering and inspection; and overall project management.</p>			
Markwest Energy Partners, Markwest Mobley Processing Facilities/Mobley 5, Smithfield, West VA			
Name of Firm:	The Lane Construction Corporation	Project Role:	Project Manager
Beginning Date:	01/2013	End Date:	12/2015
<p>Specific Responsibilities: Mr. Reynolds responsibilities included, coordinating all work activities with the owner, attending project control meetings, managing all Lane and subcontractor crews, managing schedule, ensuring quality is preserved in the construction process, maintaining and meeting budget, organizing workers and work activities, ensuring health, safety, and environmental plans are implemented and adhered too, survey, GPS machine control, QA and QC oversight.</p> <p>Project Relevance: This \$47M project consisted of 1.9 million cubic yards of excavation and embankment, Blasting and rock excavation, drainage pipe, erosion control and storm water ponds, road subbase and asphalt paving, 470,000 cubic yards of crushing and screening, soil nail walls, Tecco Slope protection system, 120" diameter underground Detention systems. Relevant scope of work to the Proposed I-95 NB Rappahannock River Crossing project included: Roadway, survey, environmental, geotechnical, hydraulics, traffic control devices, transportation management plan, right of way, utilities, public involvement/ relations, QA/QC, construction engineering and inspection; and overall project management.</p>			
<p>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.</p> <p>Current Assignment: 395 Express Lanes Extension Role: Construction Manager (Full-Time) Duration of Assignment: Completion date October 2019. Mr. Reynolds will be available for the I-95 Northbound Rappahannock River Crossing project upon contract award.</p>			

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.	
a. Name & Title: REX D. GILLEY, PE / SUPERVISING STRUCTURAL ENGINEER	
b. Project Assignment: LEAD STRUCTURAL ENGINEER	
c. Name of all Firms with which you are employed at the time of submitting SOQ's. In addition, please denote the type of employment (Full time/Part time): WSP USA INC. (FULL TIME)	
<p>d. Employment History: With this Firm 20 Years with Other Firms 9 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):</p> <p>WSP USA Inc., 2004-Present: Mr. Gilley has 29 years of innovative engineering design experience, including the last 27 years which have been focused on VDOT projects as well as Locally Administered Projects utilizing VDOT standards. He has served as Lead Structural Engineer on projects and as Project Manager on VDOT's 2008 Bridge On-call, which resulted in 13 bridge replacements. Mr. Gilley's technical experience includes structural engineering of bridge structures over active navigable channels, major highway structures, retaining walls, overhead sign structures, design of new fender systems, in addition to design of various foundation types for transportation structures. His work includes preliminary and final design of reinforced concrete, prestressed concrete, and structural steel elements on complex, environmentally sensitive bridge structures to improve capacity, enhance safety, and improve ability for emergency/evacuation routes. In addition, his construction phase experience provides clients with valuable insight in producing and coordinating designs that incorporate both owner's standards and contractor's preferences.</p>	
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: University of Tennessee, Knoxville/MS/1991/Civil Engineering; University of Memphis, Memphis/BS/1988/Civil Engineering	
f. Active Registration: Year First Registered/ Discipline/VA Registration #: 1994/Professional Engineer/025213	
<p>g. Document the extent and depth of your experience and qualifications relevant to the Project.</p> <ol style="list-style-type: none"> 1. <i>Note your role, responsibility, and specific job duties for each project, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i> <p>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.)</p> <p>* On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.</p>	
TDOT, Widening of I-440 from I-40 to I-24, Nashville, TN (DESIGN-BUILD)	
Name of Firm: WSP USA Inc.	Project Role: Lead Structural Engineer
Beginning Date: 08/2018	End Date: 08/2020 (estimated completion date)
<p>Specific Responsibilities: As Lead Structural Engineer for the final design and load rating activities for the widening of six interstate bridges, Mr. Gilley was responsible for all substructure and superstructure design activities related to the widening of six bridges on I-440 including the coordination of all bridge elements with the contractor, CSX, geotechnical, roadway, drainage, traffic, MOT, noise wall design, noise wall design/repair, lighting disciplines, as well as all related plan production activities.</p> <p>Project Relevance: This D-B project consists of 7.5 miles of interstate highway and bridge widening, including the widening of curved, twin fourth-level interchange crossings at I-440 over I-65, and a CSX railroad utilizing continuous steel plate girders. The total bridge lengths are 1,018' (WB) and 1,039' (EB). The distance between the existing bridges is 32'. Due to super-elevated cross-slope, the existing bridges are being widened independently. The bridges' constrained workspace at this system interchange required careful design and construction planning. Innovative rolling gantry cranes are being utilized to place rebar cages for the drilled shafts and pier columns, and to lift girder pairs from the roadway median to place them on the substructures. Bridge piers consist of reinforced concrete hammerhead piers supported on single drilled shafts. Work at this interchange is also constrained for MOT as there are only a few weekends allowed for closures of the interchange. Girder erection schemes allow much of the girder fit-up to occur off the bridge, thus limiting the amount of time required if a full closure is required. The overall construction duration was part of the bidding process. Innovative bridge and roadway techniques assisted in reducing the construction duration, resulting in the lowest best value bid for the project. Another commitment that TDOT made related to impacts to the community was to include sound wall installation prior to other construction activities. Within four months of Notice of Award, four new sound walls were designed and installed to allow other construction to commence.</p> <p>The project also included the widening of twin bridges for I-440 over Lealand Lane and over Craig Avenue. Bridges are simple spans of 111' and 112', respectively. Lealand Lane is utilizing precast I-beams while Craig Avenue is using tee-beams. Potentially</p>	

similar elements include D-B procurement; constrained workspace; innovative design solutions; limited impacts to traffic and community; schedule constraints; large, elevated bridge; tall cast-in-place reinforced concrete hammerhead piers supported on single drilled shafts; precast tee-beams; innovative girder erection scheme; coordination of elements with the contractor, CSX railroad and design team for multiple disciplines, and construction phase support. **Relevant scope of work to the Proposed I-95 NB Rappahannock River Crossing project include:** Roadway, survey, structures, bridges, environmental, geotechnical, hydraulics, traffic control devices, transportation management plan, right of way, utilities, public involvement/ relations, QA/QC, construction engineering and inspection; and overall project management.

VDOT, I-264/MLK Interchange Design-Build, Portsmouth, VA (DESIGN-BUILD)

Name of Firm: WSP USA Inc.	Project Role: Lead Structural Engineer
Beginning Date: 01/2012	End Date: 12/2016

Specific Responsibilities: The project originated from an unsolicited proposal that required developing conceptual designs for use by the contractor and concessionaire to develop and negotiate contract pricing with VDOT. VDOT retains ownership in this 58-year concession agreement to operate and maintain the facility. Mr. Gilley coordinated bridge elements with subconsultants and the D-B contractor during that early phase for bridge design, tunnel U-boat sections, and tunnel rehabilitation. He also provided design coordination and quality assurance of the Ramp EN Bridge final design, and technical assistance for bridge-related construction issues for bridge widenings and new bridges. During final design coordination with subconsultants, he continued to provide consistency in design and detailing between group members.

Project Relevance: The project consisted of the design and construction of structural steel bridges including the widening of two I-264 crossings, Martin Luther King Expressway Mainline bridge, four interchange ramp bridges, and Ramp EN over NBPL Railroad as well as a six-span precast bulb-tee bridge at Ramp EN over Frederick Boulevard. This was all coordinated with a one mile extension of the Martin Luther King Expressway. For Ramp EN over Frederick Boulevard, to balance MOT impacts and bridge costs the design and construction team investigated different span arrangements and profiles. Precast spans with piers located in the center of Frederick Boulevard required shoulder-only closures while providing a more cost-effective bridge. The beam layout required careful geometric layout because of the horizontal and vertical curves and super-elevated cross-slope. Potentially similar elements include D-B procurement; VDOT design and detailing methodology, conceptual design and pricing, a grade-separated bridge under MOT; multi-span precast prestressed Bulb-tee beams. **Relevant scope of work to the Proposed I-95 NB Rappahannock River Crossing project include:** Roadway, survey, structures, bridges, environmental, geotechnical, hydraulics, traffic control devices, transportation management plan, right of way, utilities, public involvement/ relations, QA/QC, ITS, construction engineering and inspection; and overall project management.

VDOT, Route 33 Bridge Replacements, West Point, VA

Name of Firm: WSP USA Inc.	Project Role: Lead Structural Engineer
Beginning Date: 02/2002	End Date: 05/2008

Specific Responsibilities: As Lead Structural Engineer for final design and load rating activities for the replacement of two movable bridges, Mr. Gilley was responsible for all abutment, pile bent, pier, foundation, precast Bulb-tee beams and deck design activities related to the fixed spans on three bridges, including the coordination of bridge elements with geotechnical, roadway, drainage, traffic, MOT, lighting, and architectural disciplines, as well as all related plan production activities.

Project Relevance: The project consisted of 2.39 miles of highway and bridge replacement, including two major crossing structures: a 5,354'-long, four-lane crossing of Thorofare Creek, Pamunkey River, and Norfolk Southern Railroad with a movable span to accommodate a 90'-wide channel with 55' of vertical clearance in the closed position; and a 3,545'-long crossing of the Mattaponi River. The Pamunkey River Bridge and Mattaponi Bridge were broken into separate packages to foster competitive bidding. This required coordination between these adjacent projects as there were roadway improvements made in the town of West Point as part of the design. To keep businesses open and traffic moving, local streets were utilized for detours to allow construction of one intersection at a time. Also, the project was tightly constrained on the west end due to two local businesses. It was necessary to thread the new road and bridge between one business and the existing road that needed to remain open during construction. Temporary sheeting, permanent sheeting, ground improvements and careful selection of the abutment location were all required to accommodate this site constraint. The superstructures of the fixed portion of the bridges consisted of precast PCBT-45 beams made continuous for live load for the low-level trestle units. Innovative lightweight, precast PCEF 89-95.5-60 beams and lightweight deck were used in the high-level approaches as well as the spliced-girder units to reduce loads on the substructure units. Low-level trestles are supported on pile bents utilizing driven 24" square precast piles. High-level approach and spliced-girder units are supported on multi-column piers using driven 24"-square precast piles. The bascule piers are supported on driven 66"-diameter cylinder piles. The pile caps for the multi-column piers and bascule pier were set at an elevation that provides protection of the piles from barge impacts. Mr. Gilley continued to lead the structural effort through the construction phase, providing timely responses that maintained the project schedule. Potentially similar elements include a large bridge over water; tall cast-in-place reinforced concrete piers; coordination with adjacent projects; use of innovative design solutions; precast Bulb-tee beams; coordination of elements with multiple disciplines, and construction phase support. **Relevant scope of work to the Proposed I-95 NB Rappahannock River Crossing project include:** Roadway, survey, structures, bridges, environmental, geotechnical, hydraulics, traffic control devices, transportation management plan, right of way, utilities, public involvement/ relations, QA/QC, ITS, construction engineering and inspection; and overall project management.

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. **N/A**

Attachment 3.4.1(a)
LEAD CONTRACTOR WORK HISTORY FORMS


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 responsibilities.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement.(in thousands)
					Original Contract Value	Final or Estimated Contract Value	
Name: 495 Express Lanes Location: Fairfax County, VA (DESIGN-BUILD)	Name: HNTB	Name of Client./ Owner: VDOT Phone: 540.829.7500 Project Manager: John Lynch, PE Phone: 540.829.7512 Email: john.lynch@VDOT.Virginia.gov	12/2012	11/2012	\$1,346,560	\$1,481,670*	\$642,000

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.

Similar Scope of Work:	PROJECT SCOPE	
<ul style="list-style-type: none"> Design-Build Roadway Bridges/Structures Bridge Demolition Environmental Geotechnical Extensive MOT Right-of-Way Traffic Control Devices Hydraulics Intelligent Transportation Systems Transportation Management Plan Utility Relocation Stakeholder Coordination Public Involvement/Relations QA/QC Survey CEI Overall Project Management 	RELEVANT PROJECT ELEMENTS TO I-95 NB RRC	

Construction of four new managed/HOV traffic lanes (two in each direction) in the median of the existing lanes on the Capital Beltway. Work included the reconstruction of ramps, heavy maintenance of traffic effort, shoulder reconstructions, interchanges, frontage roads, bridge over and underpasses and bridge widening's, and pedestrian crossings. The Project encompassed the replacement of more than \$260M of aging infrastructure, including 12 interchanges and 58 bridges. Construction of the Project required close coordination with VDOT, MWAA, WMATA, local jurisdictions, businesses, community associations, and the traveling public. As a 35% member of the Fluor-Lane LLC CJV, LANE provided nearly all of the project supervision and workforce, plus all asphalt paving as a subcontractor to the CJV. *Only LANE of Fluor-Lane LLC will be the Lead Contractor on the I-95 NB RRC project.*

Successful Coordination with Adjacent Projects: Construction work was coordinated with one Class 1 rail agency and one commuter railroad. Norfolk Southern Railroad operates a network of heavy railroad lines that crossed the project, which required significant coordination in areas of the project that crossed over live track operations. WMATA concurrently constructed a \$2.5 billion, 13-mile long extension of its rail line that crossed the project in multiple locations.

Construction of Bridges in a Constrained Work Space: Our Team widened and/or replaced 58 bridges on this project adjacent to high ADT count/live traffic and in very constrained work spaces. Also the replacement of ten arterial roadway bridges over I-495 and four I-66 bridges over I-495, Arterial bridges typically included sidewalks and bike path facilities and several bridges included suspended utilities. Seven bridges carrying I-495 over US 50 (4) and Chain Bridge Road (3). One pedestrian bridge replaced and another lengthened and 36 expressway ramp bridges, major ATMS and construction of more than nearly 13 miles of new sound walls.

Use of Innovative Design Solutions and Construction Techniques: Numerous ATCs, combined with reduction in the originally approved Record of Decision regarding ROW and length of the project, *saved VDOT over \$500M in project costs.*

Limiting Impacts to the Traveling Public and Affected Businesses and Communities, including Commitments to Minimizing Congestion During Construction: A key challenge was accommodating extreme volumes of commuter, residential and commercial vehicular traffic. The contract required the project to maintain the existing traffic/pedestrian access during construction; affecting every phase of the planning, design and construction of the Express Lanes, feeder roads and shared use paths. By conducting extensive traffic studies and through close coordination with VDOT and the local jurisdictions, our team produced a number of innovative designs, carefully planned lane shifts, and construction phasing sequences that helped to minimize disruption during construction. More than 1,000 public outreach meetings were conducted and, in coordination with VDOT, the Team kept the public involved through various media methods: project website, routine newsletters, and brochure mailings to residents and business.

On time or Early Completion of Contract Milestone Dates: **The project was completed one month ahead of schedule.** The team worked hard to expedite both the design and construction schedules which resulted in early completion.

Success Taking and Managing Risks and Realizing Incentives: Construction of Idylwood Road Bridge, which had an existing ADT of more than 15,000 vehicles, was scheduled to take two years to rebuild. The original construction plan entailed closing one lane of the Idylwood Road Bridge and installing temporary traffic signals to alternate one-way traffic across the bridge while the other side was reconstructed. Each side of the bridge would have taken a year to complete for a total duration of two years. A new plan was developed to rebuild it in **six months**. Our team held a public information session on the two plans for the Idylwood Road Bridge and sent out 5,000 direct mail invitations with information on the two plans. 91% of the comments submitted by nearby residents were in support of the alternate six month plan and the bridge construction proceeded with great success.

Utilities: There was significant utility coordination effort, both in relocation of existing utilities and installation of new services for lighting and toll facilities, **LANE fulfilled this requirement by not reducing traffic capacity during construction.** Two high voltage transmission lines ran in a corridor parallel to the main alignment of the project, crossing several arterial roads that were associated with the project. More than 102,000 linear feet of utilities, owned by 15 utility owners were relocated including water, sanitary sewer, electric, and telecommunications. In total, over 175 utility conflicts were identified and resolved requiring coordination with 13 different utility owners.

ROW: A reduction in the right-of-way needs from 170 acres to only 10 acres when compared to original plans. 108 easements were acquired, 35 of which were business owned.

Roadway/MOT: The interstate widening project expanded the capacity of a 14-mile segment of I-495 Capital Beltway from north of the I-95/I-395/I-495 Interchange to just north of the Dulles International Airport Toll Road. The MOT plan developed did not impact traffic capacity during construction, daytime lane closures were restricted during rush-hour traffic. This Mega-Project required traffic management accommodating over 250,000 ADT, and carefully revised project scheduling and sequencing to safely accommodated lane shifts.

Safety: The 495 Express Lanes project has been the recipient of numerous awards including a safety award for more than 5,000,000 man-hours without a lost time incident. Despite working alongside traffic in a limited area, with many key activities like bridge demolition and steel erection occurring at night, the construction team achieved a Total Recordable Incident Rate (TRIR) of 0.69, which ranks the project among the best heavy civil projects in the nation.

**The contract value was increased by the Owner as a result of increased scope – betterments outside the scope of the original contract with VDOT, changes at the request of the Concessionaire (CBE), additional bridge work related to WMATA's extension of the Silver Line to Dulles, and improvements for MWAA in the Dulles Toll Road/Access Road interchange with I-495.*

EVIDENCE OF PERFORMANCE

“A solid experienced company that has built to standard and worked well under difficult traffic and space constraints to minimize impact on travel.” - *Garrett Moore, P.E., VDOT Chief Engineer*

“As the primary self-perform entity in the Flour-Lane Joint Venture, Lane has demonstrated outstanding ability to complete construction on time under these heavy traffic conditions,” wrote *Tim Steinhilber (General Manager, Capital Beltway Express, LLC)*

This project received the following awards: *NAPA 2012 Operations Safety Innovation Award; 2007 Excellence in Virginia Government Public Private Partnership Award; Construction Management Association of America 2013 Project Achievement Award for Infrastructure Project with Constructed Value Greater than \$150 Million; 2008 "Deal of the Year" (non-traditional financing), The Bond Buyer*


ATTACHMENT 3.4.1(a)

LEAD CONTRACTOR - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

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					Original Contract Value	Final or Estimated Contract Value	
Name: 95 Express Lanes Location: Fairfax County, VA (DESIGN BUILD)	Name: HNTB/HDR	Name of Client./ Owner: VDOT Phone: 571.483.2651 Project Manager: Charlie Warraich, PE Phone: 571.273.8229 Email: HS.Warraich@vdot.virginia.gov	12/2014	12/2014 <i>(2 weeks early)</i>	\$691,147	\$726,194*	\$326,850

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.

Similar Scope of Work:	PROJECT SCOPE	
<ul style="list-style-type: none"> • Design-Build • Roadways • Bridges and Structures • Extensive MOT • Environmental • Geotechnical • Right-of-Way • Hydraulics • Stormdrain and SWM • Asphalt Milling and Resurfacing • Intelligent Transportation Systems • Traffic Control Devices • Transportation Management Plan • Utilities • Stakeholder Coordination • Public Involvement/Communications • QA/QC • Survey • CEI • Overall Project Management 	RELEVANT PROJECT ELEMENTS TO I-95 NB RRC	
Proposed Personnel on Project:	<p>LANE, as a Construction Joint Venture (CJV) member, shared responsibility for the design and construction of the \$726 million 95 Express Lanes project. The project created approximately 29 miles of Express Lanes on I-95 from Alexandria, VA at the northern terminus to Route 610, Stafford, VA at the southern terminus. The scope of work included a 9-mile roadway extension beginning at the southern end of the existing HOV lanes, consisting of major clearing and earthwork, an extensive ITS and signing system, sound walls, asphalt mill and overlay, shoulder reconstruction, and, additionally, structural bridge work (29 bridges and rehabilitated flyovers including 9 new structures). Although only a 35% Fluor-Lane 95, LLC CJV member, LANE provided nearly all of the project supervision and workforce for the CJV. Additionally, LANE performed bridgework and 20 miles of existing HOV lane renovation and widening; plus, all of the asphalt paving, soundwall construction and some roadway signage. <i>Only LANE of Fluor-Lane LLC will be the Lead Contractor on the I-95 NB RRC project.</i></p> <p>Successful Coordination with Adjacent Projects: Due to the size and scope of the project, coordination with ongoing projects along the 9-mile corridor was imperative. The team was responsible for contacting other contractors regarding their anticipated schedules of the associated projects they were working on. LANE successfully coordinated with over 14 other contracts during construction.</p> <p>Construction of Bridges in a Constrained Work Space: The project presented numerous site entrance and egress challenges and very tight work areas due to the heavy traffic conditions—particularly during morning and afternoon rush hours. By breaking up the project into two (2) Areas, managers were able to focus on critical work items (bridges/structures) and develop phased plans to sequence work efforts to meet the aggressive schedule and strict requirements for maintenance of traffic.</p> <p>Use of Innovative Design Solutions and Construction Techniques: The project presented numerous work zone ingress/egress challenges and very tight work areas due to the heavy traffic and median work zone conditions. The I-95 corridor carries an ADT of nearly 250,000 vehicles per day. The team mitigated this challenge by working with construction and engineering personnel to devise the best MOT schemes and develop efficiencies; over 1,000 MOT plan sheets were developed and approved. The need for an innovative work zone traffic control and access plan was particularly critical on this project due to the severe deterioration of some of the mainline and surrounding road pavements. Unimpeded access to the existing median was necessary to improve safety, minimize impacts to traffic, reduce stress on existing infrastructure, and accelerate the project schedule.</p> <p>Limiting Impacts to the Traveling Public and Affected Businesses and Communities, including Commitments to Minimizing Congestion During Construction: A dynamic public information program was implemented which provided advance information notifications to VDOT and the public. This was facilitated through meetings, website access, email blasts, flyers, and door to door calls promoting awareness of construction operations and lane closures in order to provide better travel planning through the corridor. The team held over 415 public meetings.</p> <p>On time or Early Completion of Contract Milestone Dates: The Team had 1,009 days to design and construct this fast track D-B project. The team met all milestone dates and we were able to complete the project two weeks early.</p> <p>Success Taking and Managing Risks and Realizing Incentives: As previously mentioned, schedule was the biggest risk on the project. In order to mitigate any resource limitations and meet this fast track schedule, the team decided to employ two design firms to deliver 123 design packages in order to start construction early. Over 100 design professionals in addition to VDOT design review members were collocated at the project office facility to collaborate and fast track the design deliverables. The team received construction plans and started appreciable construction activities on August 1, 2012, only 4 months after NTP. The team mobilized approximately 1,500 workers and subcontractors to construct this segmented multi-phased project. Crews worked day and night, 7 days per week to meet schedule milestones. In all, the Team completed 29 miles in 29 months!</p> <p>LANE/RDA Partnership: LANE and RDA partnered together to provide complete MOT, ROW and utilities for the project. Our Team's collaborative effort in developing a comprehensive TMP for the corridor, design adjustments to avoid utilities, and expedited utility relocations where avoidance was not feasible ensured that the project stayed on schedule.</p> <p>Roadway: A new 9-mile reversible, two-lane extension of the existing HOV lanes from Dumfries to Garrisonville Road in Stafford County was constructed to alleviate the worst traffic bottleneck in the region. This new construction in the median of the roadway provided new access points to serve Virginia-based destinations, including Tysons Corner, City of Alexandria, Arlington County, and major military sites. The project included construction of 2 new lanes and extensive utility coordination and relocation.</p> <p>Bridge and Structures: Nine new bridges were constructed along the project corridor. The new bridges include two each with steel curved girders, two each two span flyovers near Garrisonville Road and Joplin Road, three single span bridges with steel girders over Aquia and Chopawamsic Creeks and Russell Road, one two-span concrete girder bridge over Joplin Road and replacement of the existing Telegraph Road bridge across I-95 with a new two-span steel girder bridge.</p> <p>Safety: The project recorded over 4 million safe work hours with zero (0) Lost Work Day Cases. This was one of the safest projects (of this size and magnitude) ever constructed. The OSHA Recordable Incident Rate is 0.44, well below the industry average of 3.6.</p> <p>DBE: Over \$193M was committed to more than 131 DBE/SWaM firms, which exceeded the team's DBE/SWaM project goals of \$189M. Additionally, the team surpassed the On the Job Training Program goal of 24 trainees set by VDOT (31 trainees graduated the program).</p> <p><i>*The contract value was increased by the Owner as a result of increased scope of work. The Owner exercised all contract allowance items which included landscaping, additional ramps, and additional I-395 gate integration work (to name a few).</i></p>	
EVIDENCE OF PERFORMANCE		
<p>"The 95 Express Lanes combined with the nearly completed 495 Express Lanes will bring a transportation network that manages congestion efficiently, saving time and better connecting commuters with some of Virginia's most important employment centers and military sites." - Sean T. Connaughton, [former] Virginia Secretary of Transportation.</p> <p>This project also received the following awards: <i>VDOT & Transportation DBE Advisory Committee "Prime Contractor of the Year Award for Excellence in Upholding the Requirements of the Disadvantaged Business Enterprise Program"; ARTBA and Transportation Builders Association' Transportation Development Foundation 2014. Achieved substantial completion two weeks ahead of schedule; ARTBA Outreach Campaign Award for "Orange Cones. No Phones." Driver awareness program.</i></p>		


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 responsibilities.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement.(in thousands)
					Original Contract Value	Final or Estimated Contract Value	
Name: I-85 over Yadkin River Location: Rowan/Davidson Counties, NC (DESIGN-BUILD)	Name: STV Incorporated	Name of Client./ Owner: NCDOT Phone: 919.707.2900 Project Manager: Rodger Rochelle, P.E. Phone: 919.707. 2710 Email: rdrochelle@ncdot.gov	01/26/2013	04/30/2014*	\$136,019	\$144,000	\$64,800

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.

Similar Scope of Work:	<p>PROJECT SCOPE</p> <p>The I-85/Yadkin River Bridge is one of the most well-known highway structures in the state of North Carolina. By replacing a severely deteriorated, 60-year old bridge, 8 months ahead of schedule and \$44M below the owner's budget, our design and construction team was able to satisfy the NCDOT's lofty project goals, achieving completion of a mega-D-B project with many complexities. Originally designed to carry 10,000 vehicles per day, the bridge was subjected to 80,000 vpd – including heavy tractor-trailer traffic. A cost-effective solution was in dire need. As a 45% member of the integrated Flatiron-Lane, A Joint Venture, LANE was responsible for the bridges, concrete and asphalt paving, traffic control, MSE wall and noise wall construction. <i>Only LANE of the Flatiron-Lane, A Joint Venture will be the Lead Contractor on the I-95 NB RRC project.</i></p> <p>RELEVANT PROJECT ELEMENTS TO I-95 NB RRC</p> <p>Successful Coordination with Adjacent Projects: During construction of this project, NCDOT let a D-B contract for the adjacent I-85 widening project to the north. Extensive coordination was required during design of the adjacent project to ensure functional MOT, roadway, drainage, erosion control, signing, and pavement marking design interface. Coordination of construction activities was necessary throughout the majority of construction, and was handled successfully. Extensive coordination occurred with the Norfolk Southern railroad during construction of the new Yadkin River Bridges, dual bridges on I-85 over a Norfolk Southern spur line, and also regarding the status of an upstream river crossing that carries two US highways.</p> <p>Construction of Bridges in a Constrained Work Space: The project site features approximately 1,500 f of wetland crossing, 700 ft of water crossing, and an upland area adjacent to railroad tracks. The size of the bridges, waterways, and wetlands restricted accessibility. Our construction solution used 2,500 lf of single work trestle and created a single access point for all construction south of the railroad tracks. We implemented and scheduled operations utilizing multiple working shifts as necessary to complete the construction with this limited access. The steel girder spans cross over one of the busiest rail corridors in North Carolina and were subject to severe time and access restrictions. The extremely high train count resulted in Norfolk Southern restricting track outages to only one four-hour window per week. Construction activities that affected rail traffic, including the erection of the large steel girders, could only be performed during this four-hour window.</p> <p>Use of Innovative Design Solutions and Construction Techniques: For increased highway capacity and safety, the new roadway utilizes a single, long, super-elevated, horizontal curve with a 17,000 ft radius to eliminate the series of tangents and horizontal curves that characterized the previous conditions. The number of lanes was increased from four to eight, and the inside and outside shoulder widths were widened to 12 ft. The inside shoulder is designed and constructed to be a future traffic lane. The bridge superstructures for the I-85 Yadkin River Veterans Memorial Bridges consist of a cast-in-place concrete deck on 20 prestressed concrete girder spans and one steel plate girder span for each of the dual bridges. The continuous units were limited to two spans to minimize the size of the bridge joints and their initial cost, and to simplify future maintenance. To eliminate the need for bridge overhang falsework, the team implemented a special "edge girder" that also served as the formwork for the deck slab overhang. The new bridges offer improved horizontal alignment and increased shoulder offsets.</p> <p>Limiting Impacts to the Traveling Public and Affected Businesses and Communities, including Commitments to Minimizing Congestion During Construction: Our MOT plan enabled us to achieve substantial completion eight (8) months early. We accomplished this by accelerating an intermediate milestone to open the northbound mainline bridge and shift all NB and SB traffic onto the new NB Bridge to temporarily carry all Interstate 85 traffic. We were able to safely sequence several phases of work, and when major traffic shifts occurred, we were able to achieve those dangerous shifts without incident.</p> <p>On time or Early Completion of Contract Milestone Dates: LANE self-imposed its own intermediate project milestone to close the old structure and open the new structure, and held its crew to completing construction by that milestone. The crews worked nights and weekends to meet the milestone. In conclusion, the I-85/Yadkin River Bridge was built successfully – ahead of schedule, well under budget, of supreme quality, and safely.</p> <p>Success Taking and Managing Risks and Realizing Incentives: NCDOT and Norfolk Southern were involved in a dispute regarding existing ROW locations for almost two years, which had a significant impact on the project schedule. As a result, an additional river crossing bridge for US 29/70 was removed from the contract and project scope. However, following resolution of the ROW dispute, our team successfully negotiated the reinstatement of the US 29/70 river crossing bridge scope and the associated contract mods and still completed the project early.</p> <p>Bridge and Structures: In total, there were 6 new bridges constructed and 5 were demolished. Of the 6 new bridges, 3 crossed the Yadkin River. LANE used a single work bridge concept to expedite construction in the environmentally sensitive Yadkin River basin, while minimizing temporary environmental impacts and providing site access away from the traveling public.</p> <p>Environmental: The project's environmental plan protected 13 environmentally sensitive wetland/streams and performed 1.5 acres of wetland mitigation. The protection of sensitive wetlands occurred by using a temporary access work bridge across the river and wetlands, which significantly reduced impacts to the wetlands. Constructing a nearly 3000-foot bridge through environmentally sensitive areas while minimizing disturbance of the ESAs was a major challenge and was primarily accomplished with the use of a single trestle work bridge in the median, instead of dual trestles on the outside. The planning document and RFP for the project envisioned a 46-foot median and separate temporary work bridges for the dual (NB and SB) Yadkin River bridges. Our team saw that, by slightly widening the median to 70 feet, we could construct a SINGLE work bridge in the center median (instead of two separate trestles), reducing the cost, timeframe, and environmental impacts all at once.</p> <p>Utilities: The project involved a number of public and private utilities, the most complex of which was the work adjacent to Duke Energy's main transmission line across the Yadkin River. By conducting "partnering" sessions with the utility owners, we succeeded in managing the utility coordination for this and other lines which were in conflict with the new construction. Two high voltage transmission lines ran in a corridor parallel to the main alignment of the project, crossing several arterial roads that were associated with the project. There was insufficient clearance between the transmission line and one of the proposed roadways, requiring transmission tower replacement to raise the lines. In total, over 175 utility conflicts were resolved requiring coordination with 13 different utility owners.</p> <p><i>*The project achieved substantial completion 8 months ahead of schedule and the interstate was open to traffic at that time. The contract date was extended by approximately one year, without claims, to accommodate added scope including the construction of the new US29/70 bridge.</i></p>	
Proposed Personnel on Project:	<p>David Grey, PE (LANE)</p>	
<p>EVIDENCE OF PERFORMANCE</p> <p>This project received the following awards: <i>2014 Design-Build Institute of America (DBIA) National Award of Merit for Transportation, 2014 Grand Award for Engineering Excellence and 2014 People's Choice Award (ACEC-NC), 2013 Pinnacle Award – Best Highway Project (CAGC), and 2014 Top 10 Bridge (#10) and 2012 Top 10 Road (#3) by Roads and Bridges Magazine</i></p>		

Attachment 3.4.1(b)
LEAD DESIGNER WORK HISTORY FORMS

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 Value (in thousands)		g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement.(in thousands)
					Construction Contract Value (Original)	Construction Contract Value (Actual or Estimated)	
Name: I-64 Capacity Improvements – Segment II Location: Newport News, York & James City Counties (DESIGN-BUILD)	Name: Allan Myers	Name of Client: VDOT Phone: 757.925.2680 Project Manager: Mike Davis Phone: 757.925.2680 Email: mike.davis@VDOT.Virginia.gov	01/2016	05/2019	\$138,747 (Original)	\$141,370 (Actual – Increases due to additional landscaping and bridge repairs)	\$9,237

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 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.

<p align="center">Similar Scope of Work:</p> <ul style="list-style-type: none"> • Design-Build • Roadway • Survey • Structure/Bridge • Environmental • Geotechnical • Hydraulics (drainage, SWM, and H&HA) • Traffic Control Devices • Transportation Management Plan • Right-of-Way • Utilities • Public Involvement/Relations • Quality Assurance/Quality Control • Intelligent Transportation Systems • CEI • Project management 	<p>PROJECT SCOPE <i>As the Lead Designer on the I-64 Capacity Improvements Segment II Project, RDA managed the design from their Glen Allen office, with assistance from their Manassas and Fredericksburg offices. The design was completed in 2017.</i> Design services included: design and subconsultant management, roadway design, traffic engineering, drainage and SWM design, structural design, MOT/TMP design, and community involvement. The project consists of widening for approximately 7.5 miles of roadway as well as the reconstruction of the existing through lanes in both directions. The western portion of the project includes a wider/depressed median from the beginning of the project through the Busch Gardens interchange and up to approximately Jefferson Avenue. The eastern portion of the project has a narrower/raised median, which requires barrier walls separated by a raised landscape area. Design elements include: open ditch designs, closed storm drainage designs, detailed H&HA designs, extensive SWM designs, roadway widening/reconstruction, nine bridge widenings, numerous box culvert extensions, and several retaining walls. Furthermore, ITS is being impacted and replaced along with numerous overhead sign structures.</p>	
<p align="center">Proposed Personnel on Project:</p> <ul style="list-style-type: none"> • John Giometti, PE (RDA) • Nikhil Deshpande, PE (RDA) • Tony Dean (RDA) • Matt Beales, PE (RDA) • Ryan Dreelin, LS (RDA) • Brian Komar, PE (RDA) • John Myers (RDA) • Paul Zhang, PE (DMY) 	<p>RELEVANT PROJECT ELEMENTS TO I-95 NB RRC Successful Coordination with Adjacent Projects: The design and construction of this segment of roadway interfaced with the I-64 Segment I project. Several phases of MOT required our Team to relocate or change the signage on the adjacent project. Additionally, the design required adjustments by our Team to accommodate the final design features of the adjacent segment to include the relocation of an emergency crossover. Construction of Bridges in a Constrained Work Space: The widening of east and westbound bridges over crossing roads created very small gaps between them as the bridges were not connected or tied together. Use of Innovative Design Solutions and Construction Techniques: In order to create more green space and to reduce significant median barrier construction, our design deviated from the RFP design to provide outside widening along the westbound direction from east of the Busch Gardens interchange to the bridges over Jefferson Avenue at Exit 147. This design change cleared more tress adjacent the Yorktown Naval Weapons Station property which was received in a positive manner by the Navy as it allowed them better visibility to potential encroachments. Furthermore, the change provided an increased benefit with respect to greenspace as the landscaping within the median barrier section was removed from the contract by the Department due to future maintenance concerns. Another design change/innovation dealt with the bridge clearance issue over Jefferson Avenue. The existing bridge clearance was at the minimum, and the proposed widening lowered the girders to the side where the roadway underneath was increasing due to cross slope and grade. As a result, there would be inadequate clearance if the same size girders were used to widen the structure. To solve the problem, our Team designed dissimilar beams to shallow up the depth and achieve adequate clearance. Finally, a year after NTP, the Myers/RDA Team discovered that the Project qualified for SWM grandfathering from Part IIB to Part IIC. Within four months, our Team reduced the number of SWM facilities from 54 to 26, providing cost savings as well as reduced future maintenance. Limiting Impacts to the Traveling Public and Affected Businesses and Communities, including Commitments to Minimizing Congestion During Construction: As the design progressed, it became apparent that some interchange gore areas couldn't be built without significant phasing which would have impacted through traffic immensely. As a result, our Team developed minor detours for short ramp closures which allowed the gore areas to be constructed outside of traffic and allowed the commuter traffic to flow efficiently. On time or Early Completion of Contract Milestone Dates: The project was delivered ahead of schedule to receive identified incentives despite redesign associated with the Value Engineering submission to convert the project from Part IIB SWM requirements to Part IIC SWM requirements. Furthermore, the final completion was delivered on-time and on-budget. Success Taking and Managing Risks and Realizing Incentives: Although our design was almost complete, the team opted to submit a VE which would cause us to revise all stormwater management facilities on the project to convert from the new regs to the old regs. Although there was a significant savings, the risk was that the construction schedule, which was already behind, would be severely impacted. Through long hours and collaborative sessions with VDOT, our team was able to revise the design. The savings, both in dollars and number of SWMs removed from the design, allowed the contractor to gain time in his schedule and ultimately achieve incentives on the project. Implementing Quality Assurance and Quality Control: The design complied with the approved QA/QC Manual developed for the project which followed VDOT's QA/QC guidelines as required by the RFP. An added tool that was implemented during the design process was the use of Bluebeam ® to perform QC comments, track their disposition, and document their implementation. This tool became especially useful when our team changed the SWM design from Part IIB to Part IIC, which significantly changed the number of facilities and their types. Ultimately, this reduces future maintenance costs for the VDOT. Environmental Compliance, Safety, Quality, Workmanship: The design and construction teams maintained continual communication through each phase of construction to implement interim E&S controls and to address unexpected conditions. Furthermore, as implementation progressed, there were several non-sequential requests by the construction team that required redesign of several of E&S controls to accommodate and to progress through final completion. As the design developed, safety was a primary focus of each design element and its implementation</p>	
<p>EVIDENCE OF PERFORMANCE</p>		
<p>Although construction for the project was initially behind schedule, the implementation of the VE and assumption of its potential risk impact allowed our team to create a more construction friendly design that finished on schedule and allowed the contractor to achieve substantial completion ahead of schedule to receive associated incentives.</p>		


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 Value (in thousands)		g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement.(in thousands)
					Construction Contract Value (Original)	Construction Contract Value (Actual or Estimated)	
Name: I-66 Eastbound Widening Inside the Beltway Location: Fairfax and Arlington County, VA (DESIGN-BUILD)	Name: The Lane Construction Corporation	Name of Client: VDOT Phone: 703.259.2734 Project Manager: Mark Gibney, PE Phone: 703.259.2734 Email: mark.gibney@VDOT.Virginia.gov	12/2017	10/2021 (Estimated)	\$85,655	\$85,655	\$7,059

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 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.

Similar Scope of Work:	PROJECT SCOPE	
<ul style="list-style-type: none"> • Design-Build with LANE • Roadway • Survey • Structure/bridge • Environmental • Geotechnical • Hydraulics (drainage & SWM) • Traffic Control Devices • Transportation Management Plan • Right-of-way • Utilities • Public Involvement/Relations • QA/QC • Intelligent Transportation Systems coordination 	<p>RDA provided professional engineering services from their Manassas office serving as the Lead Designer for LANE's I-66 Eastbound Widening Inside the Beltway D-B project for VDOT. This \$85M project will provide an additional lane for eastbound traffic on I-66 from west of Great Falls Street (Route 694) to just east of George Mason Drive for a distance of approximately 3.6 miles. The project includes interstate roadway widening, drainage and stormwater management, and full corridor lighting. The project replaces approximately 4,300 feet of dilapidated noise walls along eastbound I-66. In addition, another 5,100 feet of new noise walls along the eastbound and westbound roadway are being provided based on our team's noise analysis and design. The project includes ramp modifications at Exits 69 and 71 and bridge widening, rehabilitations and/or repairs on I-66. The project upgrades several sections of the W&OD Trail as well as provides (design and construction) a new W&OD Trail bridge over Route 29, which was challenged by high tension power lines overhead and large underground utility duct banks near proposed foundations.</p> <p>This project, part of the I-66 Inside the Beltway improvements, will provide direct access from eastbound I-66 to the West Falls Church Metro station by constructing a new ramp connection between two existing ramps (eastbound I-66 to Route 7 and the eastbound I-66 collector-distributor road adjacent to the station's parking garage) along with widening of an existing bridge. Currently, vehicles exit from I-66, turn right to head south on Route 7, turn left at the signalized intersection at Haycock Road, and then turn left onto Falls Church Drive. These movement have operational and safety issues due to maneuvering, especially during morning and evening peak periods. Our direct access design will save motorists bound for the Metro station time and reduce traffic on already congested Route 7 in these two intersections.</p>	
Proposed Personnel on Project:	RELEVANT PROJECT ELEMENTS TO I-95 NB RRC	
<ul style="list-style-type: none"> • John Giometti, PE (RDA) • Mark Gunn, PE (RDA) • John Myers (RDA) • Ryan Dreelin, LS (RDA) • Tony Dean (RDA) • Paul Zhang, PE (DMY) • Syed Khan, PE, DBIA (CES) • Stuart Casasola (LANE) 	<p>Successful Coordination with Adjacent Projects: During the design development, our Team coordinated with the tolling contractor building ITS and tolling equipment in the same corridor/space as this project. We also coordinated with the Transform 66 project and their consultant to make sure that MOT/TMP efforts were correlated between the two projects.</p> <p>Construction of Bridges in a Constrained Work Space: The project contains ten bridges – five inside/outside widening or reconstruction, three outside widening for sound walls, one relocation of a pier, and one new. Four of the five widening/reconstruction bridges abut up to WMATA tracks and structures carrying WMATA over the same side roads as the VDOT structures. The proximity of the WMATA structures to the widen bridges is on the average about six feet. The closest is one and half feet.</p> <p>Use of Innovative Design Solutions and Construction Techniques: Innovation on the project focused on numerous small items rather than big ones due to the nature of the work and the constraints of the project. Our Team worked with Dominion Energy to revamp their policy on clearance from our bridge fencing to their high-tension power lines. Generally stated, their policy identified a distance in plan view. Through detailed discussions, we got them to accept the clearance based on the 3D perspective. Although it doesn't seem like a big deal, it allowed our design to eliminate all bridge fencing that would have needed to have been constructed of composite materials to avoid conductive materials within the "clear zone" and utilize the architectural fencing used along the remainder of the pedestrian bridge over US Route 29.</p> <p>Limiting Impacts to the Traveling Public and Affected Businesses and Communities, including Commitments to Minimizing Congestion During Construction: Our Team worked with the Department to modify the allowable work hours associated with the project to facilitate the construction schedule while maintaining no increased impacts on the traveling public. Furthermore, our Team has performed an increased amount of nightwork that was originally scheduled as daywork to minimize congestion along the corridor.</p> <p>On time or Early Completion of Contract Milestone Dates: Although the construction is on-going, our design is 95% complete. In comparison to the detailed CPM schedule submitted with the proposal, the design was delivered ahead of schedule, putting the project on the right track for success ahead of schedule.</p>	
Success Taking and Managing Risks and Realizing Incentives:		
<p>The Team's approach to risk management is to identify all anticipated risks, their potential, and their impact (value); maintain a living document of risks and their mitigation strategies; and continually evaluate over time to adjust strategies or eliminate the risk. The top three risks during the pursuit of the project were identified as: MOT, noise barrier walls, and ITS/tolling. Through the design phase, each of these risks have been well managed through a well planned and executed design. The MOT was facilitated by designing and constructing shoulder improvements to handle traffic for a temporary shift. Our noise wall risk identified very short timeframes from when a noise wall was removed to when the new one must be constructed. As a result, we developed detailed schedules and work packages to facilitate these time sensitive elements. Finally, the ITS/tolling for the project was designed and built by others was coordinated and identified immediately upon NTP. Our design then adjusted to provide a solution with no impacts to the existing/proposed ITS systems.</p> <p>MOT/TMP: The development of MOT/TMP steered the design changes/efficiencies that were implemented into the project which allowed our Team to eliminate the reconstruction of significant retaining wall structures. The initial phase of MOT provided shoulder strengthening along the outside to allow a preliminary shift of traffic to facilitate future phases of construction. A major concern and challenge during MOT was to ensure that previously constructed (by others) ITS/Tolling facilities were unaffected by construction.</p>		
EVIDENCE OF PERFORMANCE		
Design has progressed efficiently and the project is under construction – ahead of schedule.		


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 Value (in thousands)		g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement.(in thousands)
					Construction Contract Value (Original)	Construction Contract Value (Actual or Estimated)	
Name: I-66/Route 15 Interchange Reconstruction Location: Prince William County, VA (DESIGN-BUILD)	Name: The Lane Construction Corporation	Name of Client: VDOT Phone: 703.259.2960 Project Manager: Christiana Briganti-Dunn, P.E., CCM Phone: 703.259.2960 Email: christiana.briganti@VDOT.Virginia.gov	06/2014	8/2017	\$36,194 (Original)	\$39,650 <i>(increased due to Owner initiated acceleration bonus)</i>	\$2,570

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 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.

<p>Similar Scope of Work:</p> <ul style="list-style-type: none"> • Design-Build with LANE • Roadway • Survey • Structure/Bridge • Environmental • Geotechnical • Hydraulics (Drainage & SWM) • Traffic Control Devices • TMP/MOT • Right-of-way Acquisitions • Utilities • Stakeholder Coordination • Public Involvement/ Communications • QA/QC • Project management and Coordination with other Active/ Adjacent Construction Projects 	<p>Proposed Personnel on Project:</p> <ul style="list-style-type: none"> • Mark Gunn, PE (RDA) • John Myers (RDA) • Chris Calamos (RDA) • Tony Dean (RDA) • Nikhil Deshpande, PE (RDA) • Ryan Dreelin, LS (RDA) • Stuart Casasola (LANE) 	<p>PROJECT SCOPE RDA provided professional engineering services from their Manassas office serving as the Lead Designer for LANE's I-66/Route 15 Interchange Reconstruction D-B project for VDOT. This \$36M D-B project will reconstruct the I-66/Route 15 interchange to relieve congestion, enhance public safety, operations and capacity, and accommodate forecasted traffic demand in the project area. RDA designed the reconstructed interchange as a Diverging Diamond Interchange (DDI), the third of its kind in the Commonwealth of Virginia, to best accommodate the projected traffic volumes as well as critical pedestrian movements in the interchange area. An extensive analysis by RDA to find an alternate interchange design that would best accommodate traffic demand, reduce the project footprint and environmental impacts, improve constructability and shorten overall construction duration when compared to previously considered alternatives, and reduce overall project cost resulted in selection of the DDI.</p> <p>RELEVANT PROJECT ELEMENTS TO I-95 NB RRC Successful Coordination with Adjacent Projects: Ongoing at the same time as the I-66/15 DDI project was the I-66 widening project that interfaced and affected ramp and interstate geometrics. Through coordination with the adjacent contractor and VDOT, our Team saved the Department significant rework and money. Use of Innovative Design Solutions and Construction Techniques: The efficiency of the original flyover design for the I-66/Route 15 interchange provided significant improvement for southbound Route 15 to eastbound I-66, but only improved the other movements slightly. Our team evaluated the interchange to determine if a complete solution could be developed. As a result, we proposed the use of a DDI. The DDI provided equal improvement to the southbound to eastbound movement of the flyover, but also provided significant improvement to all of the other movements as well. Limiting Impacts to the Traveling Public and Affected Businesses and Communities, including Commitments to Minimizing Congestion During Construction: The diverging diamond interchange design concept spearheaded by the LANE/RDA Team eliminated severe impacts to more than 30 percent of property owners as compared to the initial design concept. With respect to drivers and pedestrians, while maintaining traffic on the existing bridge, we built a new bridge adjacent to it which traffic and pedestrians could be shifted to while the parallel structure was built. Once both bridges were built, the conversion to the DDI patterns began which was done in phases without incident. The finished product moves traffic exceptionally well and provides a safe haven for pedestrians through the corridor. On Time or Early Completion of Contract Milestone Dates: The contract finished ahead of schedule despite having to go back through the IMR process. The change from the RFP flyover design to our DDI approach require us to revisit the IMR process and hold additional public meetings to gain approval. Success Taking and Managing Risks and Realizing Incentives: One of the biggest risks of the project was the use of DDI in a community that was very skeptical and initially opposed. However, through extensive public outreach and interchange modelling, our Team was able to convince the local jurisdiction and the public that the functionality of the DDI would greatly improve their commute. It was a huge win and a success for all. Successful Achievement of Safety and Quality: Safety was designed into the project as part of the LANE/RDA Team's strategic development—not only from a traffic operations perspective, but also from an end user perspective. Working closely with the Town of Haymarket and Prince William County, the pedestrian facility, initially prescribed to navigate the DDI at locations where the traffic projections were at their highest, was redesigned to minimize conflict points to allow for crossing locations to occur where traffic volumes were lowest. Public Involvement/Public Relations: In addition to meeting and coordinating with the public, the LANE/RDA Team also met with various emergency responders and local school bus drivers, to ensure they have an understanding of the changing traffic patterns and configurations. A similar outreach approach may be prudent to ensure that the Prince William Parkway Interchange at Realigned Balls Ford Road project has the same success. Furthermore, The LANE/RDA Team assisted VDOT by providing numerous independent education and coordination meetings with adjacent business owners, community organizations, and political representatives early in our design process. These small group and one-on-one meetings alleviated concerns over the delivery of our Team's innovation of Northern Virginia's first, fully-integrated Diverging Diamond Interchange, and resulted in overwhelming community support for the project. MOT/TMP: The I-66/Route 15 interchange required a complex TMP to construct the project in a constricted work zone with high traffic volumes and pedestrian mobility. RDA developed the TMP in coordination with LANE's construction team to ensure constructability while maintaining acceptable traffic operations. Additionally, the project team coordinated closely with emergency providers (e.g., police, fire, rescue, etc.) and the hospital located adjacent to the project to ensure that access through work zones would not impede their services. We anticipate similar coordination to ensure corridor safety and response time.</p> <p>Bridges/Structures: The project encompassed the demolition of northbound and southbound bridges carrying Route 15 over I-66, followed by the construction of two replacement bridges designed to support the new DDI configuration. Bridge design and construction added additional width at the bridge approaches to enable temporary traffic patterns that reduced the number of bridge construction phases and associated traffic shifts. A detailed sequence of construction allowed for the maintenance of existing traffic for the entire duration of the project.</p>	
<p>EVIDENCE OF PERFORMANCE</p>		<p>Our Team's collaboration with VDOT and the effective use of our Design-Build techniques allowed us to recover our schedule impacts The project was completed on budget and ahead of schedule This project was named "DBIA National Project of the Year 2018" and "2018 Excellence in Infrastructure Award" from the Heavy Construction Contractors Association (HCCA), additionally was named the "2018 Design-Build Winner" by the Virginia Transportation Construction Alliance (VTCa).</p>	



The Lane Construction Corporation
in association with Rinker Design Associates, PC