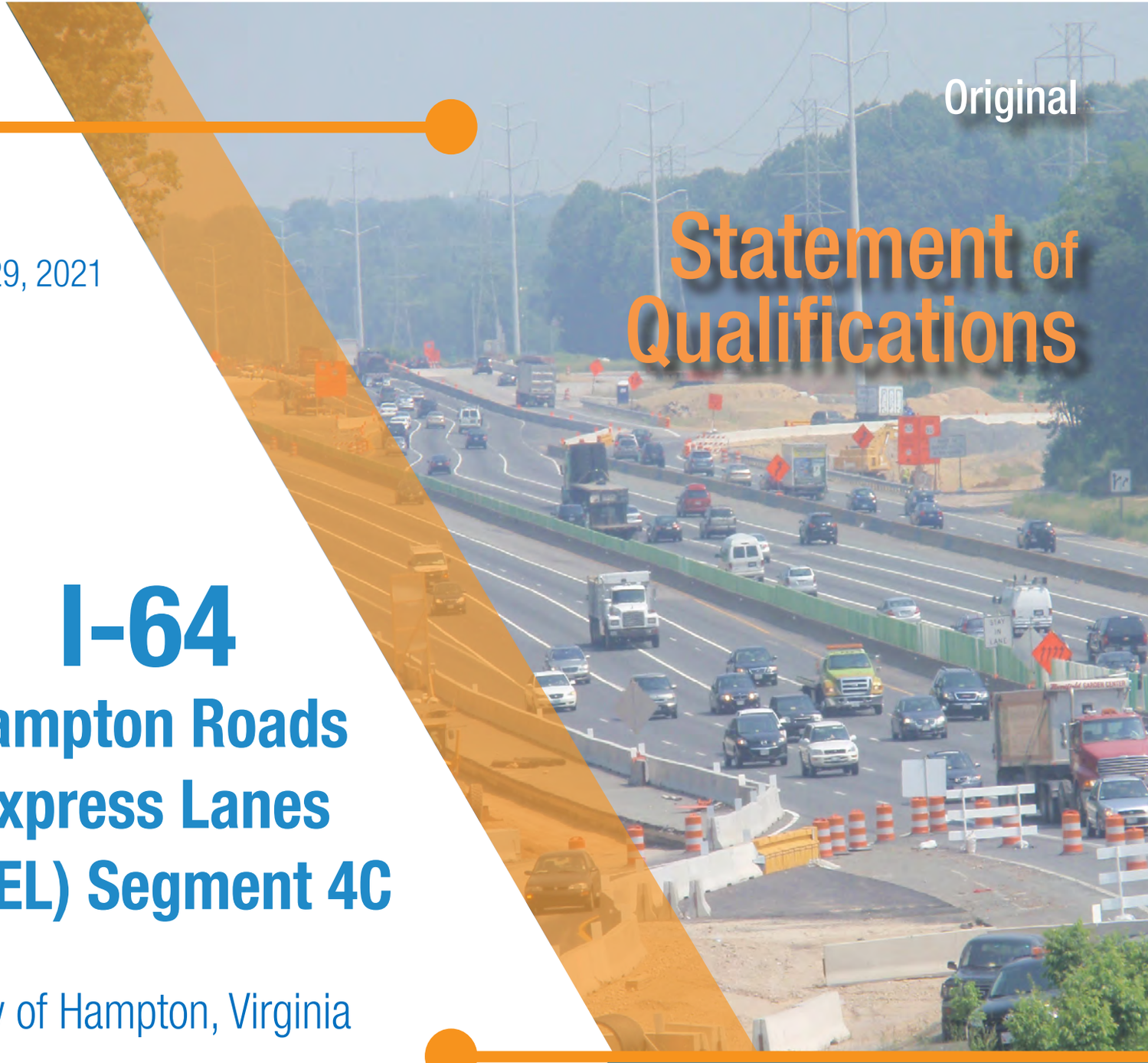
Original

JUNE 29, 2021

Statement of Qualifications



I-64
Hampton Roads Express Lanes (HREL) Segment 4C

City of Hampton, Virginia

State Project No.: 0064-114-xxx
Federal Project No.: NHPP-064-3(522)
Contract ID Number: C00117841DB111

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

3.2 Letter of Submittal

LANE

June 29, 2021

Commonwealth of Virginia
Department of Transportation (VDOT)
1401 E. Broad Street
Richmond, Virginia 23219
Attention: Suril R. Shah, P.E., DBIA (APD Division)

RE: I-64 Hampton Roads Express Lanes (HREL) Segment 4C
State Project No.: 0064-114-xxx
Federal Project No.: NHPP-064-3(522)
Contract ID Number: C00117841DB111

Dear Mr. Shah:

The Lane Construction Corporation (Lane) is pleased to submit this Statement of Qualifications for the above referenced project to the Virginia Department of Transportation (VDOT).

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), Route 29 Solutions D-B in Albemarle County (ACEC/VA Pinnacle Award for Engineering Excellence and Grand Award for Engineering Excellence), and the I-66 Eastbound Widening Inside the Beltway D-B project. 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-64 HREL Segment 4C 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 services for numerous D-B projects in the Commonwealth. We are confident in our team structure, experience, and resources 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. John Havel, PE is the authorized representative and Point of Contact for Lane for all matters associated with this qualifications submittal.

John Havel, PE, Pursuit Manager
14500 Avion Parkway, Suite 200
Chantilly, VA 20151
Tel: (412) 445-0423 Fax: (703) 222-5960
Email: JPHavel@laneconstruct.com

3.2.3 Offeror's Principal Officer Information: Mr. Mark Schiller is a Principal Officer of Lane.

Mark Schiller, President & CEO (The Lane Construction Corporation)
90 Fieldstone Court
Cheshire, CT 06410
Tel: (203) 235-3351 Fax: (203) 237-4260
Email: MASchiller@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 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 single surety letter from the bonding companies is included in the Appendix, confirming their willingness to provide any and 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 6% goal for the design and construction of this project utilizing Virginia certified DBE companies.

As evidenced by 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 VDOT on this important project.

Respectfully submitted,

John Havel, PE
Pursuit Manager
The Lane Construction Corporation

3.3 Offeror’s Team Structure

3.3 Offeror's Team Structure

The Lane Construction Corporation (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.

The Lane Construction Corporation (Lane) will serve as Lead Contractor of the D-B Team for the I-64 Hampton Roads Express Lanes (HREL) Segment 4C (I-64 HREL Segment 4C) project. Consistently ranked as one of *Engineering News-Record's (ENR)* Top Highway Contractors (currently ranked #4), Lane has built more than 17,600 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. Additionally, Lane has completed or is currently delivering **19 managed lane projects across the country, totaling 200 miles and valued at more than $9.2 billion**. Our proven heavy civil experience in bridge and roadway construction, which includes more than 80 D-B projects totaling more than $14 billion 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 17 D-B projects in the past 10 years valued at over $580 million and supported another 12 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.

Lane and RDA enjoy a successful D-B working relationship, delivering VDOT's I-66/Route 15 Interchange Reconstruction D-B *(DBIA 2018 National Project of the Year Award winner)*, Route 29 Solutions D-B *(ACEC/VA Pinnacle Award for Engineering Excellence & Grand Award for Engineering Excellence)*, I-66 Eastbound Widening Inside the Beltway D-B, and Prince William County's Balls Ford Road Widening D-B project. Together, we are the foundation of the Lane Team.

To further meet the needs of this project, we have added the following highly qualified subconsultants to our Team:

- Quinn Consulting Services, Inc. (Quality Assurance Management)
- McCallum Testing Laboratories (AMRL Certified QA Lab)
- DMY Engineering Consultants Inc. (Geotechnical)
- Corman Kokosing Construction Company, Inc. (Dedicated Construction Subcontractor)
- Bryant Structures, Inc. (Dedicated Construction Subcontractor)

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 this Project. Information regarding their experience can be found in Attachment 3.3.1 in the Appendix. Our Key Personnel are employed full-time by their respective firms.

Reporting Relationships of Key Personnel

Design-Build Project Manager (DBPM), Mr. Ryan Terry (Lane) *will report to VDOT and serves as the Project's central point of contact.* He will be responsible for the overall Project and will oversee design, construction, quality management, contract administration, and other services required by the Contract Documents. He will facilitate communication; monitor design efforts to proactively eliminate potential constructability issues prior to breaking ground, and delegate resources to deliver the project on time. Additionally, he is responsible for the coordination of public outreach and meetings, construction quality management, and contract administration.

☑ **Added Value:** Mr. Terry has nearly 20 years of construction management experience. His experience leading projects with similar scope, complexity, and diverse stakeholders significantly reduces the learning curve and minimizes risks.

Entrusted Engineer In Charge (EIC), Troy Carter, PE (Lane) *reports directly to the DBPM and will have direct lines of communication with the DM, CM, and QAM.* Mr. Carter will be assigned to the Project full-time and will be actively engaged in coordinating all engineering decisions for the life of the Project (from Notice to Proceed through Final Acceptance). He is responsible for ensuring all engineering work for the Project is integrated and in conformance with the Contract Documents. Mr. Carter will be involved or have personal supervisory direction and control authority in making and approving engineering decisions during construction. He will answer questions/inquiries relevant to engineering decisions regarding design and/or construction. Mr. Carter is a registered Professional Engineer in Virginia.

☑ **Added Value:** Mr. Carter brings over 20 years of construction and design management experience. He has worked on numerous D-B projects and has spent most of his career working on complex interstate and bridge projects in highly traveled corridors similar to this Project.

Quality Assurance Manager (QAM), Mr. Anthony Kondysar, PE (QCS) *will report directly to the DBPM on all quality issues and will communicate regularly with the EIC.* Any item of work failing to meet minimum standards will be rejected and corrected immediately. Construction personnel have no authority over QA inspection staff, and issues raised by construction personnel and QA/QC inspectors will be resolved by Mr. Kondysar and the DBPM. Mr. Kondysar will keep VDOT informed on the status of quality of construction and issues/solutions through weekly reports and progress meetings. As QAM, Mr. Kondysar holds the authority to suspend work if quality issues warrant. **Quality Assurance Inspectors, Perry Wenger, PE (Bridge) and Cory Fout (Roadway),** *will report directly to the QAM,* and will be assigned to the project on a full-time basis for the duration of the project. The QA Testing firm, McCallum Testing Laboratories, *will report to Mr. Kondysar* and is independent of the QC inspections and testing.

☑ **Added Value:** Mr. Kondysar has 35 years of experience in the transportation construction industry. He has extensive VDOT experience, having served as a QAM on recent I-64 Capacity Improvement projects (Segments I and III). He also served as the QAM on EFLHD's I-564 Intermodal Connector D-B project.

Design Manager, Brandon Shock, PE, DBIA (RDA) *will report directly to the DBPM and communicate regularly with the EIC.* Mr. Shock will maintain close communication with the DBPM and ensure the Project is designed in accordance with the requirements of the contract documents. He is responsible for coordinating all design disciplines and ensuring the overall project design conforms to the RFP, design criteria, and specifications. All design disciplines report to Mr. Shock, who will be assisted by Mr. Rick DeLong, PE, Deputy Design Manager. Mr. Shock will provide VDOT with design plans for review and approval to confirm that the design work is constructable and complies with the requirements of the Contract Documents. He is also responsible for establishing oversight of the QA/QC program for each design discipline of the project. He will be assisted by Mr. Mark Gunn, PE who will provide an independent design QA audit. Design QC will be performed by qualified independent staff for each discipline as the design is being performed.

☑ **Added Value:** Mr. Shock has 22 years of transportation design and management experience. Over the past 10 years, he was the lead designer or the Deputy DM on 11 D-B projects. Many of these projects involved interstate widening and interchange reconfigurations. Mr. Shock recently served on VTCA's Engineering Consultant Leadership Committee as an Emerging Leader.

Construction Manager, Mr. Jerzey Myckow (Lane) *will report directly to the DBPM and communicate regularly with the EIC.* His daily duties include safety, coordination of all project personnel including subcontractors, and construction QC. He holds ultimate responsibility for managing the project's construction schedule and will coordinate with the adjacent projects. He will hold routine meetings with the QA Lead Inspectors to discuss all ongoing construction activities and will review all QC reports and lab results. Mr. Myckow will be available prior to the start of construction. Mr. Myckow holds a Virginia DEQ Responsible Land Disturber (RLD) Certification and will hold a VDOT Erosion and Sediment Control Contractor Certification (ESCCC) prior to commencement of construction.

☑ **Added Value:** Mr. Myckow brings over 40 years of experience in the construction industry. He has extensive experience on a wide variety of D-B interstate/ highway projects. He has managed design coordination, constructability reviews, utility relocation, and subcontractor coordination.

Narrative of other Functional Relationships

Following our successful model on prior Lane/RDA D-B projects, we have strategically arranged our Team to mirror the same integrated organizational approach. Our team structure has a straightforward chain of command, with individual tasks and functional responsibilities clearly identified. Our organizational chart identifies key personnel and major functions to be performed for the successful management of the Project.

Lane has formed a cohesive and integrated team that will report together under the direction of our DBPM. RDA will manage all design activities and perform a majority of the design work in-house. Our Design Manager, as he has done previously, will coordinate with each discipline and their design efforts, having continual discussions between the disciplines so design direction and consistency is provided throughout the entire Project. This is important to the success of the project and our ability to meet any design schedule. Our EIC, who reports directly to the DBPM, will work directly with the Design Manager and his team to ensure decisions are being made by competent, licensed engineers and consistent with the requirements of the contract documents. He will also communicate directly with the Construction Manager, as well as the QAM. He will communicate regularly with VDOT and has the vested authority to act on behalf of the Lane Team.

Lane has added two dedicated subcontractors to the construction team to help provide additional workforce capabilities as well as an extensive knowledge of the local area. Corman Kokosing and Bryant Structures, along with other carefully selected construction subcontractors (including DBEs and SWaMs) will ensure our team has sufficient resources to construct the Project on-budget and within schedule.

Bryant recently completed the Ft. Eustis Blvd. and Lee Hall Reservoir bridge widenings on the I-64 Capacity Improvements-Segment I project. They are also near final completion of the full bridge replacements over Queens Creek on the I-64 Capacity Improvements-Segment III project and the Atkinson Blvd. bridge construction project in Newport News, both of which required temporary access trestles. Bryant's experience on bridge widenings and replacements along the I-64 corridor, as well as trestle use in the region, will be a major benefit to the critical bridge work on this project.

Design and Construction Team Interaction

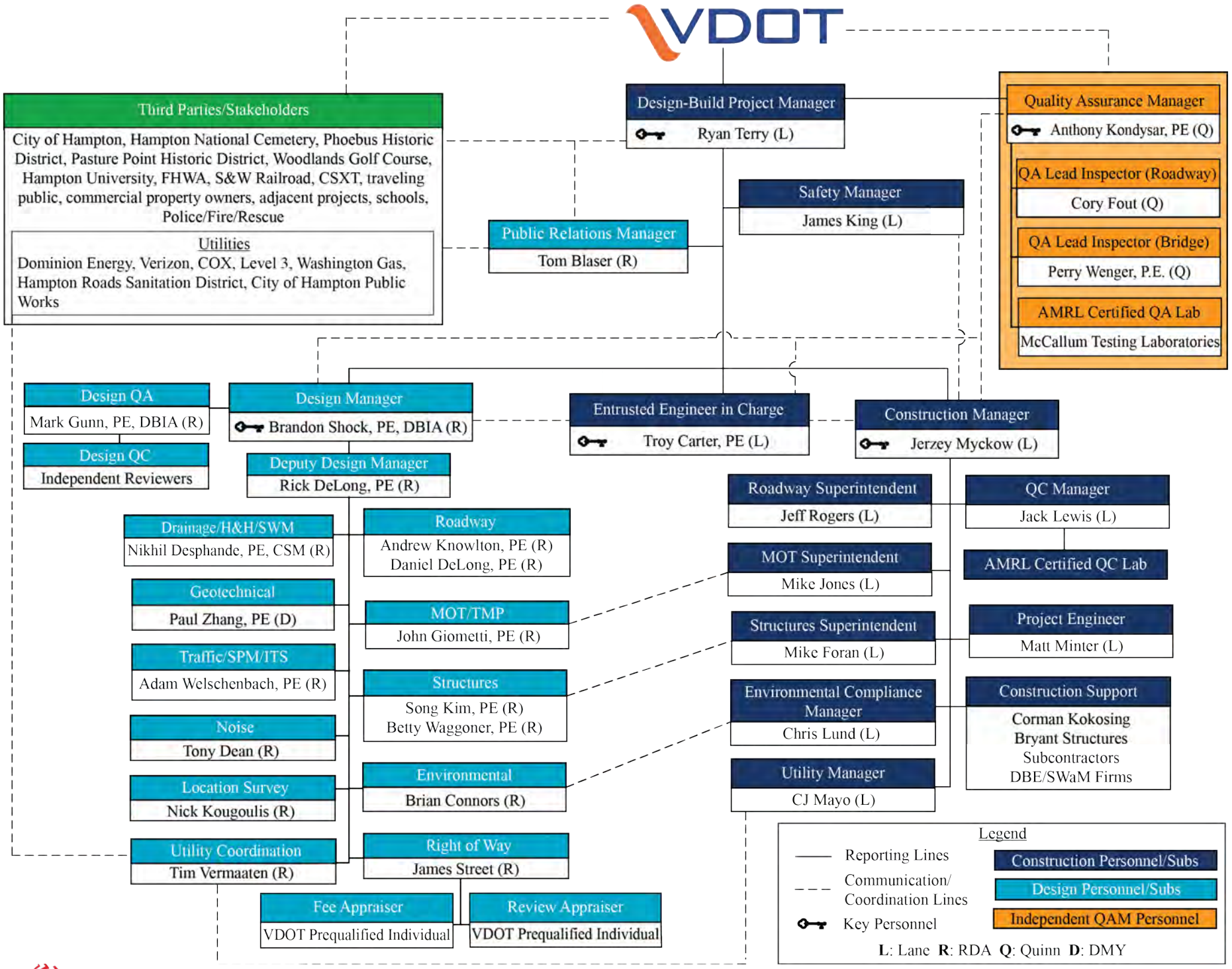
The Lane Team ascribes to the DBIA paradigm that "integrated development of the design and construction program is the cornerstone of D-B delivery and this methodology optimizes opportunities for collective excellence." Put into practice, our design and construction teams will interface throughout the life of the contract.

To ensure a successful project, the Lane Team's extensive D-B experience reflects that weekly scheduled discipline coordination meetings throughout project execution are critical. These focused meetings, which are led and coordinated by the EIC, Mr. Carter, serve as a conduit for disseminating project-critical information and are the central point of decision-making and communication among all involved in the project. These regular, open forums of discussion among the Lane Team to address plan elements serve to clearly define project criteria. VDOT will be invited on a regular basis for over the shoulder reviews and coordination to ensure project goals are being met, observe how design is progressing, and how risks are being mitigated.

Through this approach, we create strong relationships and truly integrated D-B functions that set the foundation to interact and partner with VDOT and third-party stakeholders, streamline reviews, eliminate potential construction field issues, and deliver the project safely, as early as possible.

3.3.2 Organizational Chart

The following Organizational Chart depicts VDOT, third party stakeholders, key personnel, and their respective relationships and functions.


VDOT
Third Parties/Stakeholders
City of Hampton, Hampton National Cemetery, Phoebus Historic District, Pasture Point Historic District, Woodlands Golf Course, Hampton University, FHWA, S&W Railroad, CSXT, traveling public, commercial property owners, adjacent projects, schools, Police/Fire/Rescue
Utilities
Dominion Energy, Verizon, COX, Level 3, Washington Gas, Hampton Roads Sanitation District, City of Hampton Public Works
Design-Build Project Manager
Ryan Terry (L)
Quality Assurance Manager
Anthony Kondysar, PE (Q)
QA Lead Inspector (Roadway)
Cory Fout (Q)
QA Lead Inspector (Bridge)
Perry Wenger, P.E. (Q)
AMRL Certified QA Lab
McCallum Testing Laboratories
Safety Manager
James King (L)
Public Relations Manager
Tom Blaser (R)
Design QA
Mark Gunn, PE, DBIA (R)
Design QC
Independent Reviewers
Design Manager
Brandon Shock, PE, DBIA (R)
Deputy Design Manager
Rick DeLong, PE (R)
Entrusted Engineer in Charge
Troy Carter, PE (L)
Construction Manager
Jerzey Myckow (L)
Roadway Superintendent
Jeff Rogers (L)
QC Manager
Jack Lewis (L)
AMRL Certified QC Lab
MOT Superintendent
Mike Jones (L)
Structures Superintendent
Mike Foran (L)
Project Engineer
Matt Minter (L)
Environmental Compliance Manager
Chris Lund (L)
Construction Support
Corman Kokosing
Bryant Structures
Subcontractors
DBE/SWaM Firms
Utility Manager
CJ Mayo (L)
Drainage/H&H/SWM
Nikhil Desphande, PE, CSM (R)
Roadway
Andrew Knowlton, PE (R)
Daniel DeLong, PE (R)
Geotechnical
Paul Zhang, PE (D)
MOT/TMP
John Giometti, PE (R)
Traffic/SPM/ITS
Adam Welschenbach, PE (R)
Structures
Song Kim, PE (R)
Betty Waggoner, PE (R)
Noise
Tony Dean (R)
Environmental
Brian Connors (R)
Location Survey
Nick Kougoulis (R)
Utility Coordination
Tim Vermaaten (R)
Right of Way
James Street (R)
Fee Appraiser
VDOT Prequalified Individual
Review Appraiser
VDOT Prequalified Individual
Legend
Reporting Lines
Communication/ Coordination Lines
Key Personnel
Construction Personnel/Subs
Design Personnel/Subs
Independent QAM Personnel
L: Lane R: RDA Q: Quinn D: DMY

3.4 Experience of Offeror's Team

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The I-64 HREL Segment 4C project will benefit from a cohesive and experienced 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 provide innovative 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 this project unifies the abilities of each to perform in a complementary 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:

VDOT 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*

VDOT 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

Lane's Express/Managed Lane project experience includes:

RELEVANT EXPERIENCE

- Contracts finished on time or earlier
- Successfully coordinated with adjacent projects
- Developed urban corridor
- Innovative design and construction solutions
- Limited impacts and minimized congestion during construction
- Effective stakeholder communication

EXPRESS/MANAGED LANE PROJECTS	VALUE	# MILES
VDOT I-95 Express Lanes D-B	$726M	29
Transurban I-395 Express Lanes	$351M	8
VDOT I-495 Express Lanes D-B	$1.5B	14
CFX SR 408 SR 417 to Alafaya Trail	$76M	4
CFX SR 408 Conway to Oxalis	$125M	1.5
Florida Turnpike Widening Beulah to SR 50	$86M	4
CFX SR 408 Rosalind Ave to Crystal Lake	$64M	1.8
TXDOT IH-35W Segment 3B North Tarrant Expressway	$126M	3.58
TXDOT SH 360 South Toll Road D-B	$280M	9.7

3.4.1 Work History Forms

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

3.5 Project Risks

3.5 Project Risks

The Lane and RDA Team has carefully considered the critical elements of work for the I-64 HREL Segment 4C project to determine the three most relevant and critical project risks. During our evaluation of potential risks, we considered numerous risks to the project, including coordination with the HRBT project, geotechnical, utilities, bridge construction, maintenance of traffic (MOT), construction resources, agency/stakeholder coordination, public relations, environmental (to include environmental justice issues lingering from the original construction of I-64, the Emancipation Oak and the groups behind protecting it, and the Hampton National Cemetery), stormwater management, noise, and associated ROW acquisitions. We concluded that **MOT, Unanticipated Geotechnical Soil Conditions, Erosion & Sediment Control Near Sensitive Environmental Resources** are the three most critical risks that must be mitigated to ensure the success of the Project.

Risk No. 1 – Maintenance of Traffic (MOT)

Risk Identification/Why the Risk is Critical: I-64 is a critical east-west artery carrying local, commuter, commercial, and tourist traffic throughout Hampton Roads and serves as a Hurricane Evacuation Route; it is a significant risk if a continual flow of traffic is not maintained. As observed in the traffic information provided by VDOT in the RFQ Informational Package, I-64 within the project limits carries an AADT of over 100,000 vehicles per day. Traffic in this section of I-64 will need to be coordinated with the adjacent HRBT Express Lanes project that is currently underway to provide a seamless traffic flow between the multiple work zones. The safety risk to the traveling public, emergency responders, incident management response, and the construction workforce is exacerbated by the mix of distracted or confused drivers traveling through a highly congested highway while navigating multiple construction work zones. Any major impact to the traveling public along I-64 will have a negative impact to the entire corridor and network. Construction must be sequenced to maintain consistency for motorists while widening and replacing bridges as well as reconstructing the existing pavement and shoulders. Failure to clearly identify and address potential issues, provide a well-defined traffic control plan, or effectively communicate the plan will result in driver confusion, indecision, congestion, delays, public backlash and a decrease in worker and motorist safety. Some of the specific elements our Team has identified as a basis for this risk include:

- The presence of multiple construction work zones on a high-volume, heavily traveled corridor, entering/exiting from interchanges within reduced lane drops, and aggressive driving increases the potential for accidents due to driver distraction.
- Traffic delays and queueing can lead to a variety of negative outcomes including driver frustration and increased accident rates. Most traffic accidents on congested highways are related to speed differentials and queued traffic that directly translates into a less safe work zone for both the traveling public and for construction personnel.
- Construction ingress/egress to the median work zone on a high speed/high volume roadway is dangerous, and therefore contributes to the maintenance of traffic risks on this project.
- Regional significance of the Port of Virginia along with the commerce that it and other adjacent ports bring to the region and rely on continued flow of traffic.

Impacts to the Project: The impacts of an inadequately developed and/or executed MOT program will have significant and severe consequences, not only to the project, but to the entire network, including:

- Project schedule delays
- Increased project costs
- Reduced safety for road users and construction personnel

- Increasing local, commuter and regional travel delays along I-64 and parallel roadways
- Traffic delays to area schools/colleges/universities for classes and sporting events
- Interruptions to and/or increased response time for emergency response activities
- Increased congestion and/or accidents due to driver confusion/poor messaging
- Negative perceptions from local communities, leading to frustration/work zone travel fatigue. As driver frustration increases, so does risky and/or aggressive driving behaviors.
- Difficulty with constructability (i.e. moving materials in and out of work zones)
- Reduced capacity for hurricane evacuation operations

The inability to minimize these occurrences will result in public safety concerns, increased potential for rear-end crashes, more significant traffic delays, and lack of confidence of the traveling public and stakeholders.

Risk Mitigation Strategy: This risk can be effectively managed by first developing an effective Transportation Management Plan (TMP) and Temporary Traffic Control Plans (TTCP) that comprehensively reflect each project elements constructability; the safe and efficient navigation of the traveling public through the work zones; and timely and responsive Incident Management Strategies. As a part of our MOT plan, the overall TMP must communicate a concise plan to all stakeholders and detail operations and incident management. The following strategies will be implemented to minimize the impacts associated with the MOT risk in a safe, efficient, cost-effective manner:

Effective Public Outreach and Communications with Stakeholders: Our Team will develop and implement an effective Communication Plan, as a critical component of our TMP. Our focus will remain on informing and educating the public of the traffic pattern changes, delays, and project updates as they drive through the corridor. During heavy traffic events, traffic can be diverted to I-664/Monitor Merrimac Tunnel to alleviate congestion within the work zone. Our Team will be responsible for inputting lane closures and related traffic impacts on VDOT's LCAMS and VaTraffic System throughout the duration of the project and informing both the public and VDOT of all traffic pattern changes. Multiple outreach tools will be used to deliver these messages, such as: VDOT's media and project website, social and traditional media, and "pardon our dust" citizen meetings. This outreach will be fully coordinated with the VDOT Hampton Roads District Public Affairs staff as well as the Regional Traffic Operations Center with real-time travel information through the Virginia 511 traffic information website and mobile app.

Our Team will develop and implement an effective plan for continuous stakeholder input to mitigate issues and concerns. This outreach will be fully coordinated with the VDOT Hampton Roads District Construction Division and Public Affairs staff. This outreach will include representatives from:

- VDOT
- Local and State Police
- Local Fire and Rescue
- Residential Community Groups
- Local Business Groups
- Hampton National Cemetery
- Phoebus Historic District
- Pasture Point Historic District
- Hampton University
- Woodlands Golf Course
- City of Hampton
- CSXT / S&W Railroad

Traffic Management Task Force (TMTF): Consisting of members from Lane, RDA, VDOT, and third-party stakeholders noted above, the TMTF is our Team's coordinated approach to managing traffic throughout the life of the contract – an approach we deem critical to minimizing disruptions of traffic. The TMTF will meet regularly to review MOT and strategize on the optimization of traffic safety and efficiency. These meetings will keep VDOT and project stakeholders up to date on the project's progress and alert them to any upcoming changes in traffic patterns. Recommendations generated by the TMTF will be continually implemented into the MOT plan.

Lane Shifts and Construction Phases: Phased traffic control plans will be developed for the project to construct each of the proposed bridge improvements. During the constructability reviews of the phased traffic control plans, special attention will be given to limit the number of traffic shifts required to construct the bridges. Our Team has personnel that hold Basic, Intermediate and Advanced Level Work Zone Certifications, to implement and monitor all traffic control devices and ensure compliance with MUTCD and VA WAPM. As separation between traffic and construction activities increases, so does safety.

Emergency Pull Offs: While the VA WAPM only recommends emergency pull-offs when shoulders are removed for distances longer than two (2) miles, our Team plans to ensure adequate pull-off areas exist no more than one mile apart where practical. This approach will better accommodate space for drivers to pull out of the through lanes to reduce the potential for traffic impedances or accidents.

Adequate/ Safe Construction Access Points: Our Team will place access points in areas outside of ramps and avoid areas of heavy inflow of vehicles entering the corridor. We will also schedule construction deliveries (inflow and outflow) outside of peak hours as much as practical. Safe access points will be supported by appropriate notification and advanced warning signage and space to facilitate deceleration and acceleration for trucks entering or exiting a work zone.

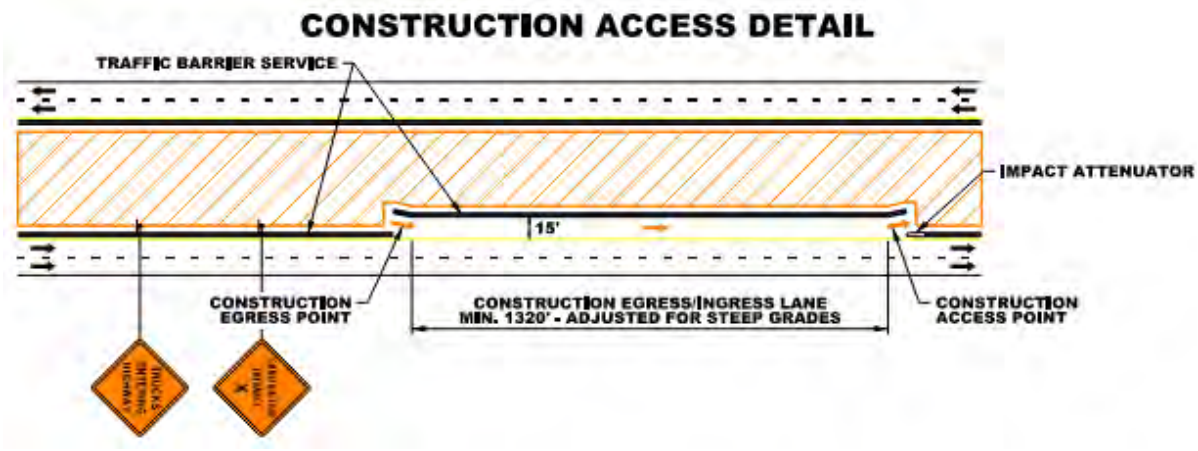


Figure 3.5.1 – Typical Construction Ingress/Egress Scheme

Optimizing Sequence of Traffic Flows During Construction Operations: Our Team's extensive experience and proven success on interstate projects enables us to create a MOT plan that not only minimizes construction phasing but optimizes other aspects of construction. RDA provided this critical service on Lane's I-66 Inside the Beltway and FAM's Transform 66 P3 Outside the Beltway projects. As an example, RDA was tasked with MOT for Transform 66 Segment 3C, which includes the I-66/I-495 interchange. This task posed a challenge in designing a MOT plan that would not only limit the number of phases for construction, but also avoid confusion for both local and non-local drivers. RDA's team skillfully reconfigured the MOT design from six phases to three, which included bridge elements as well as ramp designs to tie in smoothly with mainline I-66 for both eastbound and westbound traffic. RDA's efforts simplified the MOT documents without sacrificing safety for the public or construction personnel.

Although not part of the original pursuit, RDA was asked by FAM, the contractor for the Transform 66 P3 project, to provide MOT design for the I-66/I-495 interchange based on their expertise and past experience in solving complex MOT issues.

Incident Management Plan (IMP): The IMP will detail the response protocols for incidents to include weather impacts, traffic incidents (crashes), special concerts or sporting events, and holidays; establishing emergency detour routes and more. Our IMP will utilize an experienced team to minimize incident related risks by:

- Setting up coordination meetings with participating agencies and adjacent construction projects to ensure that all Unified Commands and Incident Action Plans (IAP) are deployed within the project limits.
- Immediately responding to all incidents within the project limits, first with our IMC and followed by a team of design and construction staff to forensically evaluate any issues.
- Adhering to the VDOT safety regulations (hardhats, vest, etc.).
- Distributing monthly updates, at a minimum, to the VDOT IMC, providing a summary of crashes within the work zone, number of events requiring tow service, and recommendations (along with those items implemented and follow-up action reviews to ensure continued success), if any, to improve the safety of travel through the project.
- Providing a dedicated truck for incident management labeled "Incident Management" containing specialized equipment, light bars, cameras, etc. that will provide the IMC with the tools to deal with standard roadway incidents.

Our Team commits to the completion of an Incident Management Plan as part of our overall Traffic Management Plan prior to any construction activities requiring MOT. The key elements of a successful IMP will be jointly developed with VDOT TOC, Virginia State Police, Safety Service Patrol, and local police, fire, and rescue departments, and local communities, as appropriate.

Role of VDOT and Other Agencies: VDOT's anticipated role is to be involved in the review and approval of the TMP and IMP for the project. We also anticipate that VDOT will remain involved in the public outreach process during design and construction (either supporting or a lead role). However, as mentioned previously, communication will extend to first responders, as well as key stakeholders involved with the project. Our team understands the importance of working with VDOT and related representatives as a part of maintaining a safe work zone for motorists and our construction team.

Risk No. 2 – Unanticipated Geotechnical Soil Conditions

Risk Identification/Why the Risk is Critical: The Lane Team has reviewed the available project information provided by VDOT for the project. The current project does not include any recent subsurface soil information, and as such, much of the anticipated geotechnical risks and concerns identified below are based on the Team's information from nearby projects and in-house database of subsurface borings and similar testing, our experience in this region, and the available geologic maps and databases. The following comprise the risk related to unanticipated geotechnical soil conditions that our team has identified and need to be mitigated:

- **Lack of Subsurface Data:** The existing roadway and structures were built or modified from 1968 to 1985 based on existing plans. Design Standards, as well as other code requirements, have changed since the structures were initially constructed. The lack of recent and complete soil data requires a conservative assessment of the on-site soils until the new field exploration is completed. This results in higher risk for the D-B team and increases VDOT's risk for scope validation related to geotechnical concerns.
- **Settlement:** We anticipate that soft compressible fine-grained and loose coarse-grained soils are likely to be present below some of the embankments and near existing bridge approaches. Where new fill is required for proposed widening or for the temporary structures, such as the temporary work bridge over the Hampton River, these soils will experience consolidation in the case of fine-grained soils or elastic settlement for coarse-grained soils when new loads are applied on or near them. Additionally, there is a high potential for downdrag on new foundation elements that can affect the schedule and/or cost in order to keep the project on schedule.

- **Unsuitable soils for new pavement:** Prior to placement of new pavement, the proposed subgrade soils will need to be evaluated for suitability. Based on our review of the limited soils data in the project area, lean clay (CL) and soils with potential low CBR may be present below both new pavement and existing pavement that will be replaced. Without any subsurface data, it is difficult to estimate the extent of unsuitable soils.
- **Corrosive Soils:** The soils in the project area are Coastal Plain soils deposited in a marine environment. These coastal soils may contain layers of soils with low pH, low resistivity, and with other properties that would be corrosive. These soils will corrode exposed steel and weaken concrete used for structures and culverts.
- **Existing Substructure Foundation Condition:** Some of the existing bridge foundations have been in service since 1968. A detailed condition survey of the existing substructure and evaluating the condition of these foundation elements will be required. It is possible that these foundation elements have been weakened due to age and environmental factors that were not considered during the initial design.

Not knowing or understanding the existing geotechnical conditions as well as the required mitigation strategies can impact traffic, public safety, quality, schedule (including the critical path), and construction costs. Unsuitable subgrade materials, settlement and stability of embankment fills, and bridge foundation serviceability issues all have the potential to extend the duration of construction and increase costs. The description of risks and impacts are presented in more detail below:

- **Potential Unsuitable Soils:** Based on the geographic location of the project, there is the likelihood that subgrade soils could be unsuitable for roadway embankment and pavement subgrades.
- **Settlement and Global Stability of Embankment Fills:** New embankment fills will primarily be constructed within the existing median along the corridor for new travel lanes and shoulder construction.
- **Soft/Loose Soils for Deep Foundations at Bridges:** The bridge foundation design will be dependent on soil types and relative densities/consistencies. Significant risk to the project can occur without sufficient geotechnical boring data up to and beyond the anticipated foundation bearing elevation(s).

Potential Impact to the Project: The impacts on the project from this risk are as follows:

- Embankment settlements are time dependent. Longer wait times for settlements to be completed could extend the project schedule. This is even more important where the embankment construction is staged due to MOT requirements, and the time for each stage could be impacted.
- Low factors of safety could require flattening of embankment slopes and increasing the length of the reinforced zone of MSE walls, resulting in greater cost.
- Excess unsuitable or contaminated soils could require removal or stabilization, potentially adding cost and time to perform the work.
- Improper soil testing or analyses could cause new work to fail or maintenance issues to arise in the future.
- These soils pose a risk to the project due to the additional time required to delineate their extent, the time required to modify or remove and replace these soils with suitable fill, and the uncertainty it creates with earthwork quantity estimation.
- Soil conditions are critical factors because they affect not only the new foundations but the existing adjacent substructure units, as well.

Mitigation Strategies: Our Team will perform a detailed subsurface exploration meeting or exceeding VDOT's Manual of Instruction requirements for the project. This will include pavement cores for the existing pavement, subsurface exploration consisting of traditional SPT borings, cone penetrometer testing, and dilatometer testing. In conjunction with the field exploration, soil laboratory testing will be used to evaluate

the on-site soils and will include tests California Bearing Ration (CBR), resilient modulus testing for pavement design. For design of slopes, retaining walls, and bridge foundation, undisturbed soils samples will be tested for strength parameters, which will include direct shear and tri-axial laboratory testing.

Additional subsurface exploration may be required in areas identified as protected wetlands or waterways. Where the anticipated water level is high enough, the fieldwork will be drilled using barges. Where required, the embankment fill settlement will be monitored using settlement plates

Once the field exploration has been completed, specifically where new fill will be required for temporary construction or the widening, we will model the settlement using three-dimensional software (Settle3D). Where excessive settlement to existing or future structures and roadway are a concern, our proposed mitigation due to settlement can be achieved by either ground improvement, the use of a pile-supported embankment, or using lightweight fill material within the embankment fills. We have also considered surcharging, but our review of the available project information indicates that this will likely adversely affect nearby existing structures or roadways. For new bridge foundations, in addition to the above, downdrag mitigation measures may include oversizing the proposed foundation elements, bituminous coating, friction reducing jackets, or similar friction reducer products to reduce the impact of downdrag forces developing on the piles.

In conjunction with our subsurface exploration, locations where unsuitable soils are anticipated to be encountered below the roadway will be delineated on the project drawings (both area and depth). A Soils Remediation Plan will be developed prior to the commencement of construction and may include undercut/replacement, drying/scarification, and lime/cement stabilization.

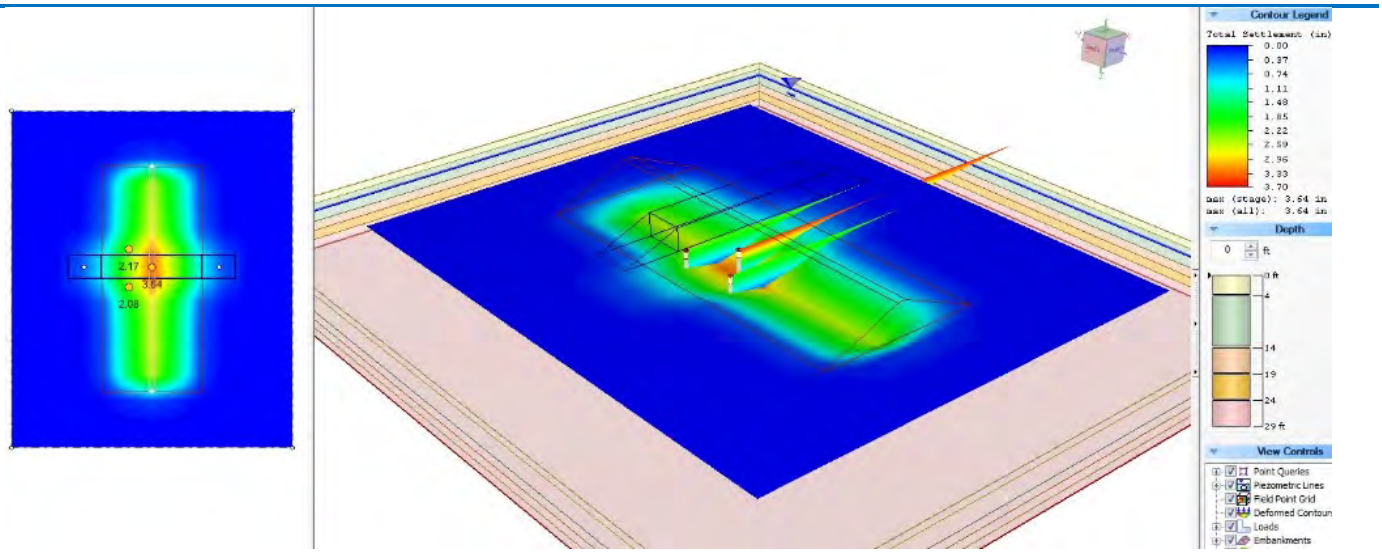


***Figure 3.5.2** – Settle3D model run for I-95 at Temple Avenue*

Our Team will evaluate the condition of the existing substructure where they will be impacted by the proposed construction. We will consider evaluating the condition of existing piles using both non-destructive methods (pile integrity testing or ground penetrating radar) and destructive methods.

Role of VDOT or Other Agencies: We do not anticipate oversight or significant interaction by City of Hampton, or other agencies in order to complete the work on time and in a quality manner. We anticipate that VDOT will assist in expediting any permits and permissions required by the review agencies for the fieldwork. After the project is awarded, VDOT's role is primarily limited to review and approval of design submittals and general project oversight.

Risk No. 3 – Erosion & Sediment Control Near Sensitive Environmental Resources

Risk Identification / Why the Risk is Critical: Environmental compliance under Sections 401, 402, and 404 of the Clean Water Act, including compliance under the Virginia Stormwater Management Program (VSMP) is critical to protecting the high value natural resources along the Hampton River and throughout the corridor. We recognize that the Hampton River through and around this project is a highly-valued Commonwealth and City of Hampton amenity and a resource that is used for a wide variety of active and passive recreation as well as environmental education. Mill Point Park and other recreational facilities are contained within the area directly downstream of the project. A well-designed and implemented project that eliminates or minimizes potential adverse environmental effects during construction is a significant measure of project success.

Figure 3.5.3 – Hampton River

When working in and adjacent to a sensitive resource like the Hampton River, effective erosion and sediment controls are a key element of successful project delivery. We anticipate this project will have increased visibility and greater than usual attention from regulatory agencies and the public given its location and importance.

Impacts to the Project: The impact this risk could have on the project includes construction delays resulting from the need to enhance erosion and sediment controls and stormwater management or, in a worst-case situation, temporary shutdown of work authorized by the project VSMP and/or Section 401/404 permits if there is a significant sediment release. Typically, erosion and sediment control plans are required to have two phases (existing conditions and proposed conditions) but this strategy often overlooks the need for intermediate controls throughout the various stages of construction. This can lead to insufficient controls in place during construction which can cause the inadvertent releases of sediment that can impact the project and downstream resources, costing money and time to correct the issue.

Figure 3.5.4 – Examples of sediment transport

Risk Mitigation Strategy: Avoidance and minimization of permanent and temporary impacts to jurisdictional features will be a priority in the design effort, to eliminate the potential for inadvertent construction impacts where feasible. Design considerations will be evaluated to optimize the design for both functionality and minimization of potential impacts. Erosion and sediment control plans will be developed for each phase of construction, in coordination with the maintenance of traffic plans. This will allow RDA to account for each construction phase's unique challenges and prevent impacts that may not be otherwise anticipated with a traditional two-phase erosion and

sediment control plan. Our Team will design, construct, and maintain ESC and SWM best management practices (BMPs) to meet or exceed the regulatory requirements to maintain the aesthetics and water quality of the Hampton River as a key resource. We have found in the past that employing varying erosion and sediment controls in series and combination (super-silt fence, rock check dams, sediment trap, etc.) works best along construction drainage paths, and this knowledge will be used to improve the effectiveness of ESC strategies.

The Lane Team commits to developing a phased E&S design to mirror the maintenance of traffic plans. This approach eliminates concerns of inadequate controls during construction phasing and ensures accountability.

Moreover, with the apparent increase in high-intensity and high-duration rainfall events in recent years, the construction team will actively monitor a variety of weather forecasting outlets, proactively increase preparedness through pre-rain event inspections and pre-emptively clean out, repair, replace and/or enhance erosion and sediment controls in advance of inclement weather. Furthermore, a full-time Environmental Compliance Manager (ECM), Mr. Christopher Lund, will be on-site during construction activities. The ECM, or someone from his team, will inspect the ESC daily. If controls are acceptable and appropriate, this frequency will be maintained. If issues arise, ESC inspections will increase to twice daily, once in the morning and once near the end of the day's construction activities. This will allow the Team to correct issues that arise during the day prior to leaving and correct issues from nighttime activities (i.e. storm events, overnight accidents, etc.).

To further enhance the use of an ECM and to ensure consistency in how field issues are resolved, an Environmental Management Plan (EMP) will be developed. This document will fortify our commitment to protecting all environmental resources and eliminate illicit discharges. The EMP will outline a communication tree to ensure that notifications for various issues are appropriately provided. It will identify various, "typical" violations and provide the appropriate corrective measures. It will also ensure that unforeseen issues have mechanisms in place to resolve ASAP. These resolutions may include reintegrating the Engineer of Record to provide strategies and corrective measures.

Role of VDOT and Other Agencies: VDOT's review and input into our erosion and sediment control plan and our EMP will ensure that the Department's concerns are addressed throughout design and construction. Other roles will include over-the-shoulder design reviews, comment resolution meetings, progress meetings, and collaboration on the need or desire for enhanced controls to address local/jurisdictional concerns.

Appendix

Attachment 3.1.2
SOQ CHECKLIST

ATTACHMENT 3.1.2

Project: 0064-114-xxx, Contract ID: C00117841DB111
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
Acknowledgement of RFQ, Revision and/or Addenda	Attachment 2.10 (Form C-78-RFQ)	Section 2.10	no	Appendix
Letter of Submittal (on Offeror's letterhead)				
Authorized Representative's signature	NA	Section 3.2.1	yes	2
Offeror's point of contact information	NA	Section 3.2.2	yes	1
Principal officer information	NA	Section 3.2.3	yes	1
Offeror's Corporate Structure	NA	Section 3.2.4	yes	2
Identity of Lead Contractor and Lead Designer	NA	Section 3.2.5	yes	2
Affiliated/subsidiary companies	Attachment 3.2.6	Section 3.2.6	no	2, Appendix
Debarment forms	Attachment 3.2.7(a) Attachment 3.2.7(b)	Section 3.2.7	no	2, Appendix
Offeror's VDOT prequalification evidence	NA	Section 3.2.8	no	2, Appendix
Evidence of obtaining bonding	NA	Section 3.2.9	no	2, Appendix
SCC and DPOR registration documentation (Appendix)	Attachment 3.2.10	Section 3.2.10	no	
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

ATTACHMENT 3.1.2

Project: 0064-114-xxx, Contract ID: C00117841DB111
STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 15-page limit?	SOQ Page Reference
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	2
Offeror's Team Structure				3-6
Identity of and qualifications of Key Personnel	NA	Section 3.3.1	yes	3-5
Key Personnel Resume – DB Project Manager	Attachment 3.3.1	Section 3.3.1.1	no	Appendix
Key Personnel Resume – Entrusted Engineer In Charge	Attachment 3.3.1	Section 3.3.1.2	no	Appendix
Key Personnel Resume – Quality Assurance Manager	Attachment 3.3.1	Section 3.3.1.3	no	Appendix
Key Personnel Resume – Design Manager	Attachment 3.3.1	Section 3.3.1.4	no	Appendix
Key Personnel Resume – Construction Manager	Attachment 3.3.1	Section 3.3.1.5	no	Appendix
Organizational chart	NA	Section 3.3.2	yes	6
Organizational chart narrative	NA	Section 3.3.2	yes	5
Experience of Offeror's Team				7
Lead Contractor Work History Form	Attachment 3.4.1(a)	Section 3.4	no	Appendix
Lead Designer Work History Form	Attachment 3.4.1(b)	Section 3.4	no	Appendix
Project Risk				
Identify and discuss three critical risks for the Project	NA	Section 3.5.1	yes	8-15

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

ATTACHMENT 2.10

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

RFQ NO. C00117841DB111

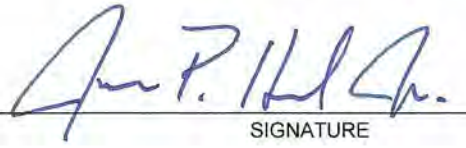
PROJECT NO.: 0064-114-xxx

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 – April 30, 2021 (Date)
2. Cover letter of RFQ Addendum #1 – June 2, 2021 (Date)
3. Cover letter of RFQ Addendum #2 – June 11, 2021 (Date)



SIGNATURE

6/29/2021
DATE

John Havel, PE.
PRINTED NAME

Pursuit Manager
TITLE

Attachment 3.2.6
LIST OF AFFILIATED & SUBSIDIARY COMPANIES

ATTACHMENT 3.2.6

State Project No. 0064-114-xxx, Contract ID C00117841DB11

Affiliated and Subsidiary Companies of the Offeror

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

☐ **The Offeror does not have any affiliated or subsidiary companies.**

☒ **Affiliated and/ or subsidiary companies of the Offeror are listed below.**

Relationship with Offeror (Affiliate or Subsidiary)	Full Legal Name	Address
Affiliate	Webuild, 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
Subsidiary	Impregilo International Infrastructures N.V.	World Trade Center Tower A, 12th Floor, Strawinskylann 1205 Amsterdam 1077 XX, Amsterdam, The Netherlands
Subsidiary	VSL Electrical, Signing, Lighting LLC	90 Fieldstone Court, Cheshire, CT 06410-1212
Subsidiary	Lane Water LLC	90 Fieldstone Court, Cheshire, CT 06410-1212
Affiliate – Joint Venture	C43 Water Management Builders	90 Fieldstone Court, Cheshire, CT 06410-1212
Affiliate – Joint Venture	Lane-Security Paving Joint Venture	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	The Lane-Blythe Construction JV	6125 Tyvola Center Drive, Charlotte, NC 28217
Affiliate – Joint Venture	Flatiron West, Inc. - The Lane Construction Corporation Joint Venture	1400 Talbot Road S, Suite 500, Renton, WA 98055
Affiliate – Joint Venture	Fluor-Lane South Carolina, LLC	100 Fluor Daniel Drive, Greenville, SC 29607

ATTACHMENT 3.2.6

State Project No. 0064-114-xxx, Contract ID C00117841DB11

Affiliated and Subsidiary Companies of the Offeror

Relationship with Offeror (Affiliate or Subsidiary)	Full Legal Name	Address
Affiliate – Joint Venture	LMH-Lane Cabot Yard JV	100 Hancock Street, Suite 901Quincy, MA 02171
Affiliate – Joint Venture	Skanska-Granite-Lane Joint Venture / I-4 Leasing, LLC	295 Bendix Road, Suite 400, Virginia Beach, VA 23452
Affiliate – Joint Venture	Unionport Constructors JV	150 Meadowlands Parkway #3, Secaucus, NJ 07094
Affiliate – Joint Venture	AGL Constructors	929 West Adams Street, Chicago, IL 60607
Affiliate – Joint Venture	Fluor-Lane 95, LLC	6700 Las Colinas Boulevard, Irving, TX 75039
Affiliate – Joint Venture	Impregilo Healy Parsons JV	2600 Independence Avenue SE, Washington D.C. 20003
Affiliate – Joint Venture	Lane-Abrams Joint Venture	3001 Meacham Boulevard, Suite 215, Fort Worth, TX 76137
Affiliate – Joint Venture	Lane-Corman, A Joint Venture	90 Fieldstone Court, Cheshire, CT 06410-1212
Affiliate – Joint Venture	Purple Line Transit Constructors, LLC	6811 Kenilworth Avenue, East Riverdale, MD 20737
Affiliate – Joint Venture	Salini Impregilo Healy JV	786 E. 140th Street, Cleveland, OH 44110
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	Virginia Sign and Lighting Company *(Being phased out)*	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.: 0064-114-xxx

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	6/29/2021	Pursuit Manager
	Date	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.: 0064-114-xxx

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	6/29/2021 Date	President/CEO Title

Rinker Design Associates, P.C.
Name of Firm

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-114-xxx

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	6/29/2021 Date	President Title

Bryant Structures, Inc.
Name of Firm

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-114-xxx

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	6/29/2021 Date	Regional Sr. Vice President Title

Corman Kokosing Construction Company

Name of Firm

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-114-xxx

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

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

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

Signature	June 10, 2021 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.: 0064-114-xxx

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 Jon W. Ebbert, P.E.	6/21/21 Date	Vice President Title

McCallum Testing Laboratories
Name of Firm

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-114-xxx

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.

Elizabeth Quinn Vinski — Signature

6/29/2021 — Date

President — Title

Quinn Consulting Services, Inc.
Name of Firm

OFFEROR'S VDOT PREQUALIFICATION CERTIFICATE

Department's List of Prequalified Vendors
Includes All Qualified Levels As Of 6/16/2021
- L -

Vendor ID: L002
Vendor Name: THE LANE CONSTRUCTION CORPORATION
Prequal Level: Prequalified
Prequal Exp: 06/30/2022

-- 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
UNITED STATES INSURANCE COMPANY EVEREST REINSURANCE COMPANY
NATIONWIDE MUTUAL INSURANCE COMPANY

June 16, 2021

Virginia Department of Transportation
1401 East Broad Street
Richmond, VA 23219

RE: **The Lane Construction Corporation**
Request for Qualifications
A DESIGN-BUILD PROJECT - I-64 Hampton Roads Express Lanes (HREL) Segment 4C From: 0.138 miles East of LaSalle Ave To: 0.500 miles East of Settlers Landing Road, City of Hampton, Virginia; State Project No.: 0064-114-xxx, Federal Project No.: NHPP-064-3(522), Contract ID Number: C00117841DB111

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, United States Fire Insurance Company, Everest Reinsurance Company and Nationwide Mutual 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, 2020. Furthermore, each surety company is rated "A" or better by A.M. Best Company, all with Financial Size Category "XIII" or better.

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 based on the current estimated contract value referenced in Section 2.1, 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
United States Fire Insurance Company
Everest Reinsurance Company
Nationwide Mutual Insurance Company

Theresan E. Rowedder

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: **8204933 - 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, Bryan Huft; Jane Gilson; Jean Correia; Mark P. Herendeen; Nathaniel E. Jakaitis; Theresan E. Rowedder

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 1st day of March, 2021.

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

By: _____
David M. Carey, Assistant Secretary

State of PENNSYLVANIA
County of MONTGOMERY ss

On this 1st day of March, 2021 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 - Notary Seal
Teresa Pastella, Notary Public
Montgomery County
My commission expires March 28, 2025
Commission number 1126044
Member, Pennsylvania Association of Notaries

By: _____
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 16th day of June, 2021.

By: _____
Renee C. Llewellyn, Assistant Secretary

POWER OF ATTORNEY
UNITED STATES FIRE INSURANCE COMPANY
PRINCIPAL OFFICE - MORRISTOWN, NEW JERSEY

80844

KNOW ALL MEN BY THESE PRESENTS: That United States Fire Insurance Company, a corporation duly organized and existing under the laws of the state of Delaware, has made, constituted and appointed, and does hereby make, constitute and appoint:

Mark P. Herendeen, Theresan E. Rowedder, Jean Correia, Jane Gilson, Bryan Huft, Maria Chaves

each, its true and lawful Attorney(s)-In-Fact, with full power and authority hereby conferred in its name, place and stead, to execute, acknowledge and deliver: Any and all bonds and undertakings of surety and other documents that the ordinary course of surety business may require, and to bind United States Fire Insurance Company thereby as fully and to the same extent as if such bonds or undertakings had been duly executed and acknowledged by the regularly elected officers of United States Fire Insurance Company at its principal office, in amounts or penalties not exceeding: **UNLIMITED**

This Power of Attorney limits the act of those named therein to the bonds and undertakings specifically named therein, and they have no authority to bind United States Fire Insurance Company except in the manner and to the extent therein stated.

This Power of Attorney revokes all previous Powers of Attorney issued on behalf of the Attorneys-In-Fact named above and expires on January 31, 2022.

This Power of Attorney is granted pursuant to Article IV of the By-Laws of United States Fire Insurance Company as now in full force and effect, and consistent with Article III thereof, which Articles provide, in pertinent part:

Article IV, Execution of Instruments - Except as the Board of Directors may authorize by resolution, the Chairman of the Board, President, any Vice-President, any Assistant Vice President, the Secretary, or any Assistant Secretary shall have power on behalf of the Corporation:

(a) to execute, affix the corporate seal manually or by facsimile to, acknowledge, verify and deliver any contracts, obligations, instruments and documents whatsoever in connection with its business including, without limiting the foregoing, any bonds, guarantees, undertakings, recognizances, powers of attorney or revocations of any powers of attorney, stipulations, policies of insurance, deeds, leases, mortgages, releases, satisfactions and agency agreements;
(b) to appoint, in writing, one or more persons for any or all of the purposes mentioned in the preceding paragraph (a), including affixing the seal of the Corporation.

Article III, Officers, Section 3.11, Facsimile Signatures. The signature of any officer authorized by the Corporation to sign any bonds, guarantees, undertakings, recognizances, stipulations, powers of attorney or revocations of any powers of attorney and policies of insurance issued by the Corporation may be printed, facsimile, lithographed or otherwise produced. In addition, if and as authorized by the Board of Directors, dividend warrants or checks, or other numerous instruments similar to one another in form, may be signed by the facsimile signature or signatures, lithographed or otherwise produced, of such officer or officers of the Corporation as from time to time may be authorized to sign such instruments on behalf of the Corporation. The Corporation may continue to use for the purposes herein stated the facsimile signature of any person or persons who shall have been such officer or officers of the Corporation, notwithstanding the fact that he may have ceased to be such at the time when such instruments shall be issued.

IN WITNESS WHEREOF, United States Fire Insurance Company has caused these presents to be signed and attested by its appropriate officer and its corporate seal hereunto affixed this 10th day of March, 2016.

UNITED STATES FIRE INSURANCE COMPANY

A.R.S.

Anthony R. Slimowicz, President

State of New Jersey}
County of Morris }

On this 10th day of March 2016, before me, a Notary public of the State of New Jersey, came the above named officer of United States Fire Insurance Company, to me personally known to be the individual and officer described herein, and acknowledged that he executed the foregoing instrument and affixed the seal of United States Fire Insurance Company thereto by the authority of his office.

SONIA SCALA
NOTARY PUBLIC OF NEW JERSEY
MY COMMISSION EXPIRES 3/25/2024
No. 2163686

Sonia Scala

Sonia Scala (Notary Public)

I, the undersigned officer of United States Fire Insurance Company, a Delaware corporation, do hereby certify that the original Power of Attorney of which the foregoing is a full, true and correct copy is still in force and effect and has not been revoked.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the corporate seal of United States Fire Insurance Company on the 16th day of June, 2021

UNITED STATES FIRE INSURANCE COMPANY

Peter M. Quinn, Senior Vice President

EVEREST

POWER OF ATTORNEY
EVEREST REINSURANCE COMPANY
DELAWARE

KNOW ALL PERSONS BY THESE PRESENTS: That Everest Reinsurance Company, a corporation of the State of Delaware ("Company") having its principal office located at 477 Martinsville Road, Liberty Corner, New Jersey 07938, do hereby nominate, constitute, and appoint:

Mark P. Herendeen, Jean Correia, Theresan E. Rowedder, Bryan Huft, Jane Gilson, Jennifer L. Jakaitis

its true and lawful Attorney(s)-in-fact to make, execute, attest, seal and deliver for and on its behalf, as surety, and as its act and deed, where required, any and all bonds and undertakings in the nature thereof, for the penal sum of no one of which is in any event to exceed UNLIMITED, reserving for itself the full power of substitution and revocation.

Such bonds and undertakings, when duly executed by the aforesaid Attorney(s)-in-fact shall be binding upon the Company as fully and to the same extent as if such bonds and undertakings were signed by the President and Secretary of the Company and sealed with its corporate seal.

This Power of Attorney is granted and is signed by facsimile under and by the authority of the following Resolutions adopted by the Board of Directors of Company ("Board") on the 28th day of July 2016:

***RESOLVED**, that the President, any Executive Vice President, and any Senior Vice President and Anthony Romano are hereby appointed by the Board as authorized to make, execute, seal and deliver for and on behalf of the Company, any and all bonds, undertakings, contracts or obligations in surety or co-surety with others and that the Secretary or any Assistant Secretary of the Company be and that each of them hereby is authorized to attest to the execution of any such bonds, undertakings, contracts or obligations in surety or co-surety and attach thereto the corporate seal of the Company.*

***RESOLVED, FURTHER**, that the President, any Executive Vice President, and any Senior Vice President and Anthony Romano are hereby authorized to execute powers of attorney qualifying the attorney named in the given power of attorney to execute, on behalf of the Company, bonds and undertakings in surety or co-surety with others, and that the Secretary or any Assistant Secretary of the Company be, and that each of them is hereby authorized to attest the execution of any such power of attorney, and to attach thereto the corporate seal of the Company.*

***RESOLVED, FURTHER**, that the signature of such officers named in the preceding resolutions and the corporate seal of the Company may be affixed to such powers 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 thereafter valid and binding upon the Company with respect to any bond, undertaking, contract or obligation in surety or co-surety with others to which it is attached.*

IN WITNESS WHEREOF, Everest Reinsurance Company has caused their corporate seals to be affixed hereto, and these presents to be signed by their duly authorized officers this 28th day of July 2016.

Everest Reinsurance Company

Attest: Nicole Chase, Assistant Secretary

By: Anthony Romano, Vice President

On this 28th day of July 2016, before me personally came Anthony Romano, known to me, who, being duly sworn, did execute the above instrument; that he knows the seal of said Company; that the seal affixed to the aforesaid instrument is such corporate seal and was affixed thereto; and that he executed said instrument by like order.

LINDA ROBINS
Notary Public, State of New York
No 01R06239736
Qualified in Queens County
Term Expires April 25, 2023

Linda Robins, Notary Public

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said Company, at the Liberty Corner, this 16th day of June 2021.

ES 00 01 04 16

Everest Reinsurance Company
461 5th Avenue – 4th Floor
New York, N.Y. 10017

EVEREST

SURETY BOND SEAL ADDENDUM
EVEREST REINSURANCE COMPANY

Due to logistical issues associated with the use of traditional seals during the COVID-19 pandemic, Everest Reinsurance Company ("Everest") has authorized its Attorney-in-Fact to affix Everest's corporate seal to any bond executed on behalf of Everest by any such Attorney-in-Fact by attaching this Addendum to said bond.

To the extent this addendum is attached to a bond that is executed on behalf of Everest by its Attorney-in-Fact, Everest hereby agrees that the seal below shall be deemed affixed to said bond to the same extent as if its raised corporate seal was physically affixed to the face of the bond.

Dated this 7th day of April 2020.

EVEREST REINSURANCE COMPANY

By: _____
Anthony Romano – Vice President & Global Head of Surety

Everest Reinsurance Company
CORPORATE SEAL
1973
DELAWARE

0000021609

Power of Attorney

KNOW ALL MEN BY THESE PRESENTS THAT:

Nationwide Mutual Insurance Company, an Ohio corporation

hereinafter referred to severally as the "Company" and collectively as "the Companies" does hereby make, constitute and appoint:

MARK P HERENDEEN; JEAN CORREIA; JANE GILSON; MARIA CHAVES; THERESAN E ROWEDDER; BRYAN HUFT;

each in their Individual capacity, its true and lawful attorney-in-fact, with full power and authority to sign, seal, and execute on its behalf any and all bonds and undertakings, and other obligatory instruments of similar nature, in penalties not exceeding the sum of

UNLIMITED

and to bind the Company thereby, as fully and to the same extent as if such instruments were signed by the duly authorized officers of the Company; and all acts of said Attorney pursuant to the authority given are hereby ratified and confirmed.

This power of attorney is made and executed pursuant to and by authority of the following resolution duly adopted by the board of directors of the Company:

"RESOLVED, that the president, or any vice president be, and each hereby is, authorized and empowered to appoint attorneys-in-fact of the Company, and to authorize them to execute and deliver on behalf of the Company any and all bonds, forms, applications, memorandums, undertakings, recognizances, transfers, contracts of indemnity, policies, contracts guaranteeing the fidelity of persons holding positions of public or private trust, and other writings obligatory in nature that the business of the Company may require; and to modify or revoke, with or without cause, any such appointment or authority; provided, however, that the authority granted hereby shall in no way limit the authority of other duly authorized agents to sign and countersign any of said documents on behalf of the Company."

"RESOLVED FURTHER, that such attorneys-in-fact shall have full power and authority to execute and deliver any and all such documents and to bind the Company subject to the terms and limitations of the power of attorney issued to them, and to affix the seal of the Company thereto; provided, however, that said seal shall not be necessary for the validity of any such documents."

This power of attorney is signed and sealed under and by the following bylaws duly adopted by the board of directors of the Company.

Execution of Instruments. Any vice president, any assistant secretary or any assistant treasurer shall have the power and authority to sign or attest all approved documents, instruments, contracts, or other papers in connection with the operation of the business of the company in addition to the chairman of the board, the chief executive officer, president, treasurer or secretary; provided, however, the signature of any of them may be printed, engraved, or stamped on any approved document, contract, instrument, or other papers of the Company.

IN WITNESS WHEREOF, the Company has caused this instrument to be sealed and duly attested by the signature of its officer the 27th day of February, 2019.

Antonio C. Albanese, **Vice President** of Nationwide Mutual Insurance Company

NATIONWIDE MUTUAL INSURANCE COMPANY SEAL COLUMBUS, OH

ACKNOWLEDGMENT

STATE OF NEW YORK, COUNTY OF NEW YORK: ss
On this 27th day of February, 2019, before me came the above-named officer for the Company aforesaid, to me personally known to be the officer described in and who executed the preceding instrument, and he acknowledged the execution of the same, and being by me duly sworn, deposes and says, that he is the officer of the Company aforesaid, that the seal affixed hereto is the corporate seal of said Company, and the said corporate seal and his signature were duly affixed and subscribed to said instrument by the authority and direction of said Company.

Suzanne C. Delio
Notary Public, State of New York
No. 02DE6126649
Qualified in Westchester County
Commission Expires September 16, 2021

Notary Public
My Commission Expires
September 16, 2021

CERTIFICATE

I, Laura B. Guy, Assistant Secretary of the Company, do hereby certify that the foregoing is a full, true and correct copy of the original power of attorney issued by the Company; that the resolution included therein is a true and correct transcript from the minutes of the meetings of the boards of directors and the same has not been revoked or amended in any manner; that said Antonio C. Albanese was on the date of the execution of the foregoing power of attorney the duly elected officer of the Company, and the corporate seal and his signature as officer were duly affixed and subscribed to the said instrument by the authority of said board of directors; and the foregoing power of attorney is still in full force and effect.

IN WITNESS WHEREOF, I have hereunto subscribed my name as Assistant Secretary, and affixed the corporate seal of said Company this 10TH day of JUNE, 2021.

Assistant Secretary

BDJ 1(02-19)00

Attachment 3.2.10
SCC and DPOR REGISTRATION DOCUMENTATION

ATTACHMENT 3.2.10

State Project No. 0064-114-xxx

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	Stock Corporation	Active	90 Fieldstone Ct., Cheshire, CT 06410	Contractor Class A	2701011871	01/31/2022
The Lane Construction Corporation	F0254476	Stock Corporation	Active	14500 Avion Pkwy, Suite 200, Chantilly, VA 20151	Business Entity Registration	0407002174	12/31/2021
Rinker Design Associates P.C.	02270627	Stock Corporation	Active	11100 Endeavor Court, Suite 200, Manassas, VA 20109	Professional Corporation Registration	0405000502	12/31/2021
				927 Maple Drive, Suite 105, Fredericksburg, VA 22407	Professional Corporation Branch Office Registration	0410000156	02/28/2022
				4301 Dominion Boulevard, Suite 100, Glen Allen, VA 23060	Professional Corporation Branch Office Registration	0410000220	02/28/2022
				4500 Main Street, Suite 310 Virginia Beach, VA 23462	Professional Corporation Branch Office Registration	0410000312	02/28/2022
Bryant Structures Inc.	05870811	Stock Corporation	Active	7754 Richmond Rd., Toano, VA 23168	Contractor Class A	2705157682	09/30/2021
Corman Kokosing Construction Company	F2080481	Stock Corporation	Active	12001 Guilford Rd, Annapolis Junction, MD 20701	Contractor Class A	2705167185	02/28/2022

ATTACHMENT 3.2.10

State Project No. 0064-114-xxx

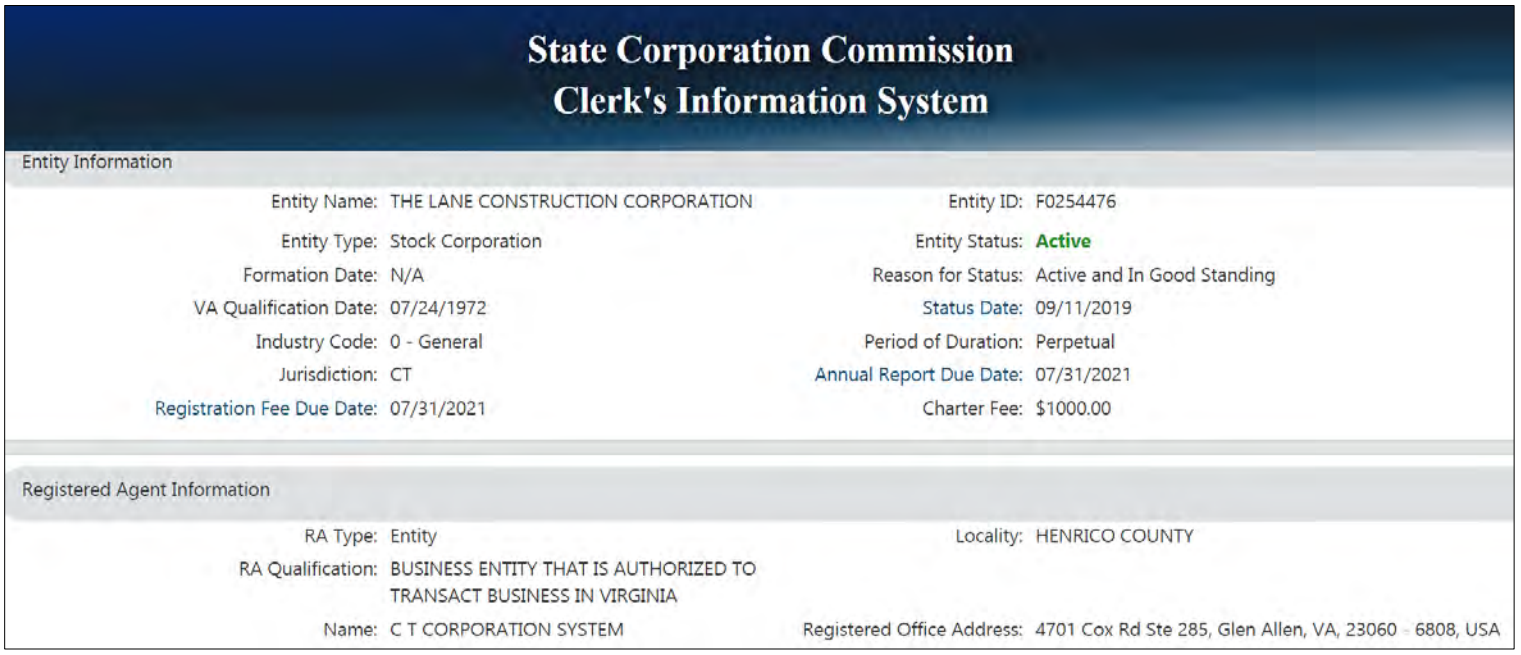
SCC and DPOR Information

DMY Engineering Consultants Inc.	07688955	Stock Corporation	Active	309 McLaws Circle, Suite F, Williamsburg, VA 23185	Business Entity Branch Office Registration	0411001322	02/28/2022
McCallum Testing Laboratories Inc.	S5234440	Limited Liability Company	Active	1808 Hayward Ave. P.O. Box 13337, Chesapeake, VA 23325	Business Entity Registration	0407003087	12/31/2021
Quinn Consulting Services Incorporated	04925517	Stock Corporation	Active	1801 Pleasure House Rd., Suite 101, 102 VA Beach, VA 23455	Business Entity Branch Office Registration	0411001133	02/28/2022

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	**Troy Carter**	Chantilly, VA	Sanford, NC 27330	Professional Engineer	0402055381	09/30/2021
Rinker Design Associates P.C.	**Brandon Shock**	Virginia Beach, VA	Powhatan, VA 23139	Professional Engineer	0402041356	01/31/2023
Quinn Consulting Services Incorporated	**Anthony Kondysar**	Virginia Beach, VA	Williamsburg, VA 23185	Professional Engineer	0402021246	07/31/2022

FULL SIZE COPIES OF SCC REGISTRATION

Screenshots as of 6/22/2021



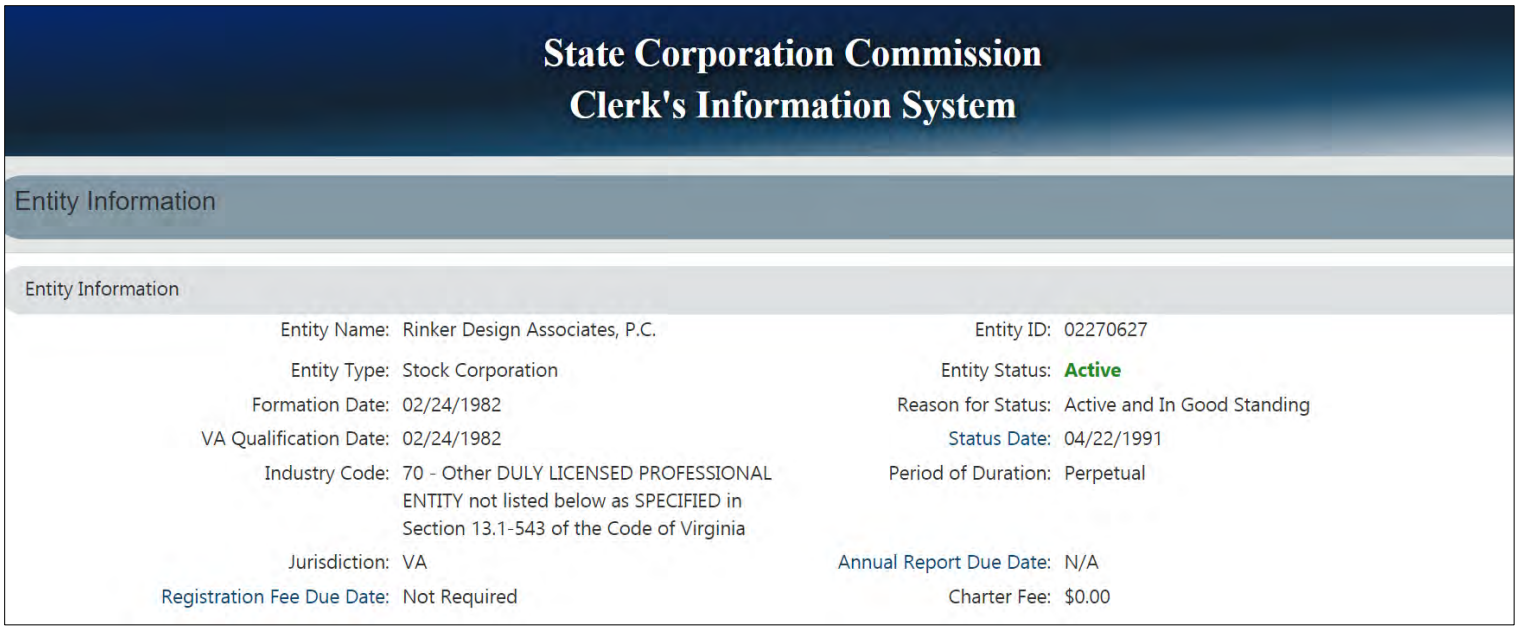
State Corporation Commission
Clerk's Information System

Entity Information

Entity Name:	THE LANE CONSTRUCTION CORPORATION	Entity ID:	F0254476
Entity Type:	Stock Corporation	Entity Status:	**Active**
Formation Date:	N/A	Reason for Status:	Active and In Good Standing
VA Qualification Date:	07/24/1972	Status Date:	09/11/2019
Industry Code:	0 - General	Period of Duration:	Perpetual
Jurisdiction:	CT	Annual Report Due Date:	07/31/2021
Registration Fee Due Date:	07/31/2021	Charter Fee:	$1000.00

Registered Agent Information

RA Type:	Entity	Locality:	HENRICO COUNTY
RA Qualification:	BUSINESS ENTITY THAT IS AUTHORIZED TO TRANSACT BUSINESS IN VIRGINIA		
Name:	C T CORPORATION SYSTEM	Registered Office Address:	4701 Cox Rd Ste 285, Glen Allen, VA, 23060 - 6808, USA



State Corporation Commission
Clerk's Information System

Entity Information

Entity Information

Entity Name:	Rinker Design Associates, P.C.	Entity ID:	02270627
Entity Type:	Stock Corporation	Entity Status:	**Active**
Formation Date:	02/24/1982	Reason for Status:	Active and In Good Standing
VA Qualification Date:	02/24/1982	Status Date:	04/22/1991
Industry Code:	70 - Other DULY LICENSED PROFESSIONAL ENTITY not listed below as SPECIFIED in Section 13.1-543 of the Code of Virginia	Period of Duration:	Perpetual
Jurisdiction:	VA	Annual Report Due Date:	N/A
Registration Fee Due Date:	Not Required	Charter Fee:	$0.00

State Corporation Commission
Clerk's Information System

Entity Information

Entity Information

Entity Name:	Bryant Structures, Inc.	Entity ID:	05870811
Entity Type:	Stock Corporation	Entity Status:	**Active**
Formation Date:	11/19/2002	Reason for Status:	Active and In Good Standing
VA Qualification Date:	11/19/2002	Status Date:	11/19/2002
Industry Code:	0 - General	Period of Duration:	Perpetual
Jurisdiction:	VA	Annual Report Due Date:	N/A
Registration Fee Due Date:	Not Required	Charter Fee:	$50.00

State Corporation Commission
Clerk's Information System

Entity Information

Entity Information

Entity Name:	Corman Kokosing Construction Company	Entity ID:	F2080481
Entity Type:	Stock Corporation	Entity Status:	**Active**
Formation Date:	N/A	Reason for Status:	Active and In Good Standing
VA Qualification Date:	01/22/2018	Status Date:	02/28/2019
Industry Code:	0 - General	Period of Duration:	Perpetual
Jurisdiction:	OH	Annual Report Due Date:	N/A
Registration Fee Due Date:	Not Required	Charter Fee:	$100.00

State Corporation Commission
Clerk's Information System

Entity Information

Entity Information

Entity Name:	DMY ENGINEERING CONSULTANTS INC.	Entity ID:	07688955
Entity Type:	Stock Corporation	Entity Status:	**Active**
Formation Date:	09/06/2013	Reason for Status:	Active and In Good Standing
VA Qualification Date:	09/06/2013	Status Date:	10/23/2020
Industry Code:	0 - General	Period of Duration:	Perpetual
Jurisdiction:	VA	Annual Report Due Date:	N/A
Registration Fee Due Date:	Not Required	Charter Fee:	$50.00

State Corporation Commission
Clerk's Information System

Entity Information

Entity Name:	McCallum Testing LLC	Entity ID:	S5234440
Entity Type:	Limited Liability Company	Entity Status:	**Active**
Formation Date:	09/11/2014	Reason for Status:	Active
VA Qualification Date:	09/11/2014	Status Date:	12/10/2019
Industry Code:	0 - General	Period of Duration:	Perpetual
Jurisdiction:	VA	Annual Report Due Date:	N/A
Registration Fee Due Date:	Not Required	Charter Fee:	N/A

State Corporation Commission
Clerk's Information System

Entity Information

Entity Name:	QUINN CONSULTING SERVICES INCORPORATED	Entity ID:	04925517
Entity Type:	Stock Corporation	Entity Status:	**Active**
Formation Date:	10/24/1997	Reason for Status:	Active and In Good Standing
VA Qualification Date:	10/24/1997	Status Date:	12/01/2008
Industry Code:	0 - General	Period of Duration:	Perpetual
Jurisdiction:	VA	Annual Report Due Date:	N/A
Registration Fee Due Date:	Not Required	Charter Fee:	$50.00

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
Specialties[2]	Commercial Building (CBC) Highway / Heavy (H/H) Residential Building (RBC)
Initial Certification Date	1972-10-12
Expiration Date	2022-01-31

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	2021-12-31

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	11100 ENDEAVOR CT STE 200, MANASSAS, VA 20109
Initial Certification Date	1986-07-16
Expiration Date	2021-12-31

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 DR STE 105, FREDERICKSBURG, VA 22407
Initial Certification Date	2005-12-27
Expiration Date	2022-02-28

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 STE 100, GLEN ALLEN, VA 23060
Initial Certification Date	2011-03-17
Expiration Date	2022-02-28

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	2022-02-28

Bryant Structures Inc.

DPOR License Lookup License Number 2705157682

License Details

Name	BRYANT STRUCTURES INC
License Number	2705157682
License Description	Contractor
Firm Type	Corporation
Rank [1]	Class A
Address	7754 RICHMOND RD, TOANO, VA 23168
Specialties[2]	Highway / Heavy (H/H)
Initial Certification Date	2015-09-04
Expiration Date	2021-09-30

Corman Kokosing Construction Company

DPOR License Lookup License Number 2705167185

License Details

Name	CORMAN KOKOSING CONSTRUCTION COMPANY
License Number	2705167185
License Description	Contractor
Firm Type	Corporation
Rank [1]	Class A
Address	12001 GUILFORD RD, ANNAPOLIS JUNCTION, MD 20701
Specialties[2]	Highway / Heavy (H/H) Marine Facility (MCC)
Initial Certification Date	2018-02-20
Expiration Date	2022-02-28

DMY Engineering Consultants Inc.

DPOR License Lookup License Number 0411001322

License Details

Name	DMY ENGINEERING CONSULTANTS INC
License Number	0411001322
License Description	Business Entity Branch Office Registration
Business Type	Corporation
Rank	Business Entity Branch Office
Address	309 MCLAWS CIR STE F, WILLIAMSBURG, VA 23185
Initial Certification Date	2016-09-22
Expiration Date	2022-02-28

McCallum Testing Laboratories Inc.

DPOR License Lookup License Number 0407003087

License Details

Name	MCCALLUM TESTING LABORATORIES INC
License Number	0407003087
License Description	Business Entity Registration
Firm Type	Corporation
Rank	Business Entity
Address	1808 HAYWARD AVENUE PO BOX 13337, CHESAPEAKE, VA 23325
Initial Certification Date	1992-05-14
Expiration Date	2021-12-31

Quinn Consulting Services Incorporated

DPOR License Lookup License Number 0411001133

License Details

Name	QUINN CONSULTING SERVICES INCORPORATED
License Number	0411001133
License Description	Business Entity Branch Office Registration
Business Type	Corporation
Rank	Business Entity Branch Office
Address	1801 PLEASURE HOUSE RD STE 101,102, VIRGINIA BEACH, VA 23455
Initial Certification Date	2014-06-25
Expiration Date	2022-02-28

FULL SIZE COPIES OF DPOR REGISTRATION (KEY PERSONNEL)

DPOR INFORMATION FOR INDIVIDUALS – KEY PERSONNEL:

Troy Carter, PE (LANE)

DPOR License Lookup License Number 0402055381

License Details

Name	CARTER, TROY M
License Number	0402055381
License Description	Professional Engineer License
Rank	Professional Engineer
Address	SANFORD, NC 27330
Initial Certification Date	2015-09-22
Expiration Date	2021-09-30

Brandon Shock, PE, DBIA (RDA)

DPOR License Lookup License Number 0402041356

License Details

Name	SHOCK, BRANDON CLAY
License Number	0402041356
License Description	Professional Engineer License
Rank	Professional Engineer
Address	POWHATAN, VA 23139
Initial Certification Date	2007-01-03
Expiration Date	2023-01-31

Anthony Kondysar, PE (Quinn)

DPOR License Lookup License Number 0402021246

License Details

Name	KONDYSAR, ANTHONY J
License Number	0402021246
License Description	Professional Engineer License
Rank	Professional Engineer
Address	WILLIAMSBURG, VA 23185
Initial Certification Date	1990-07-16
Expiration Date	2022-07-31

Attachment 3.3.1
KEY PERSONNEL RESUMES

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

1. Name & Title: **RYAN TERRY, PROJECT MANAGER**

2. Project Assignment: **DESIGN-BUILD PROJECT MANAGER**

3. Name of the Firm with which you are employed at the time of submitting SOQ: **THE LANE CONSTRUCTION CORPORATION**

4. Employment History: With this Firm >6 Years With Other Firms 12 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. Terry has more than a decade of experience managing heavy civil projects and will be the driving force of the I-64 HREL Segment 4C Project. He will be responsible for the overall Project design and construction. He is well-versed in the construction industry and has served on several award winning, high profile D-B projects.

The Lane Construction Corporation, Project Director, 2015 – Present: Responsible for overall construction, quality and safety programs, ensuring all requirements and specifications are delivered, contract administration, directing and managing project development, constructability reviews with the designers, defining project scope, goals and deliverables, collaborating with senior management and stakeholders, public outreach and public meetings, estimating resources, supervising the procurement and furnishing of all materials, equipment, services and labor necessary for project completion, scheduling project timelines and milestones, supervising team members, and developing best practices and tools for project execution and management.

Kiewit, Various Positions, 2006 – 2015: *Civil Operations Manager:* Responsible for construction operations of personnel and subcontractors, scheduling of work crews and subcontractors, safety and quality programs and construction plans. Oversaw the on-site safety, quality and production. Assisted and trained Engineers with quantities and productions, coordinating equipment and crews and other job-related activities, attending status meetings to discuss progress and public impact. *General Superintendent:* Supervised the construction operations which included bridge substructure and superstructure. Communicated effectively with quality control for inspections and tracking daily quantities and production, scheduling crews, and maintaining cost effectiveness. Responsible for on-site safety. *Project Manager:* Responsible for delivering projects safely, on time and on budget, and meeting the owner quality requirements. *Field Engineer:* Duties included reviewing plans and specifications, take-off quantities, recording quantities and preparing pay applications to review with client, coordination with MOT foreman for traffic switches and lane closures, and coordination with concrete plant on nightly basis for delivery and quantity.

5. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:
University of Missouri, Columbia, MO / Bachelor of Science in Civil Engineering/ 2003
Moberly Area Community College, Moberly, MO / Associates of Science/ 2000

6. Active Registration: Year First Registered/ Discipline/VA Registration #: **N/A**

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

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

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

VDOT, I-264/Witchduck Phase II	
Name of Firm: The Lane Construction Corporation	**Project Role:** Project Director
Beginning Date: 11/2017	**End Date:** Present (est. completion 12/2021)

Specific Responsibilities: As the Project Director on this project, Mr. Terry is responsible for providing technical, operational, financial, and managerial leadership for successful implementation of project activities. Provides oversight of project management and administration, including reporting, budget development and monitoring, financial reporting, execution of project plans, and project performance. Oversees the selection and training of qualified project staff, assigning clear roles and responsibilities, providing effective supervision, and managing performance to ensure efficient operations. Conducts monthly reviews to ensure accountability of all project activities as well as the accurate and timely reporting of project deliverables. Ensures that the project progresses in accordance with its contractual obligations.

Project Relevance: This $111 million project consists of 2.1 miles of widening I-264 and the reconfiguration of two interchanges to provide increased capacity and safety improvements. The project includes three bridges including a signature fly over bridge with aesthetic steel and lighting for the City of Virginia Beach. Significant ground improvement work was needed to support the new embankment including ground support embankment piles, two stage mechanically stabilized earth walls, and a combination of prefabricated vertical drains and surcharge. Two new full span overhead signs with dynamic message signs were constructed. The project also included a significant amount of water, sanitary sewer and storm drainage pipe, including jack and bores to cross existing streets and to replace drainage under the interstate. **Relevant scope of work to the I-64 HREL Segment 4C Project:** Interstate, roadway, structure and/ or bridge urban, survey, environmental, geotechnical, hydraulics, traffic control devices, transportation management plan, right of way, public involvement relations, quality assurance and quality control, Intelligent Transportation Systems, signage and lighting, railroad, construction engineering and inspection, and overall project management.

MWAA, Dulles Corridor Metrorail Project Phase 2, *Dulles, VA* **(DESIGN-BUILD)**

Name of Firm: Kiewit	**Project Role:** General Superintendent
Beginning Date: 6/2014	**End Date:** 5/2015

Specific Responsibilities: As General Superintendent Mr. Terry was responsible for construction of the structures on Phase 2 of the Silverline including the 4.2-mile aerial guideway structure and 3-line bridges in the median of SR 267 for this high-profile $1.2 billion project in Dulles, VA. His responsibilities included supervision of the QA/QC program, overseeing operations, coordinating the delivery of materials, planning and controlling all aspects of the sequence of construction, layout, subcontractors, work plans, and management of crews. He also supervised survey activities, all structure and bridge work performed, including direct oversight of the safety program, planning, schedule development and analysis, cost control, hiring, and equipment and material selection.

Project Relevance: The 11.4-mile Phase 2 extends the line from the eastern edge of Reston, west to Washington Dulles International Airport and to Ashburn in eastern Loudoun County, VA.

This project added six stations, and picks up at the Phase 1 terminus location, Wiehle-Reston East, and continues in the median of the Dulles Toll Road and the Dulles Access Highway with three stations, includes an aerial station at Dulles Airport and continues on with two stops in Loudoun County. The scope of work is broken down into five major components, including civil, structures, facilities, rail, and systems. Significant scopes of work included drilled shafts, constructing prestressed concrete beams and concrete straddle bents over SR 267 and airport roads, and mass concrete thermal control.

Relevant scope of work to the I-64 HREL Segment 4C Project: Design-build, roadway, survey, structure and/ or bridge, environmental, geotechnical, hydraulics, traffic control devices, transportation management plan, right of way, utilities, public involvement relations, quality assurance and quality control, signage and lighting, construction engineering and inspection.

VivaNext D1, *York Region, Greater Toronto Area, Canada* **(DESIGN-BUILD)**

Name of Firm: Kiewit	**Project Role:** Civil Operations Manager
Beginning Date: 8/2011	**End Date:** 6/2014

Specific Responsibilities: As Civil Operations Manager, Mr. Terry provided overall project management that included strategic planning and execution for the civil portion of the three vivaNext projects in the Greater Toronto area in Ontario, Canada, totaling $536 million. These projects included the widening of existing streets in urban downtown settings.

Mr. Terry initially managed the civil design on the project in Newmarket, and then transitioned to Civil Operations Manager once the work started. Worked with the design and construction teams on innovative techniques and means and methods to execute the work, organized and assigned equipment and personnel resources to execute project, led and implemented safety initiatives, established project objectives, policies, procedures and performance standards, set and monitored budget, close supervision of the contracts administration department and procurement.

Project Relevance: These projects consisted of over 4 miles of road widening in downtown Newmarket, Markham and Vaughan, Ontario. Design included traffic signal optimization controls and significant streetscape design to transform the corridor into an urban roadway. Major work included utility relocations and outages in sensitive areas (Southlake Hospital) requiring weekly coordination meetings and emergency preparedness drills, widening of existing bridges and culverts in heavily developed areas, paving and MOT schemes to work within the heavily congested city streets, extensive streetscape to beautify the corridors, dealing with multiple stakeholders in different cities and municipalities including obtaining construction permits, community outreach, and relocation and protection of existing historical structures.

Relevant scope of work to the I-64 HREL Segment 4C Project: Design-build, roadway, survey, structure and/ or bridge, environmental, geotechnical, hydraulics, traffic control devices, transportation management plan, right of way, utilities, public involvement relations, quality assurance and quality control, Intelligent Transportation Systems, signage and lighting, railroad, construction engineering and inspection, and overall project management.

8. For Key Personnel required to be on-site full-time for the duration of construction, 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.

1. Name & Title: **TROY CARTER, P.E., PROJECT DIRECTOR**

2. Project Assignment: **ENTRUSTED ENGINEER IN CHARGE (EIC)**

3. Name of the Firm with which you are employed at the time of submitting SOQ.: **THE LANE CONSTRUCTION CORPORATION**

4. Employment History: With this Firm 16 Years With Other Firms 10 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. Carter has successfully led teams on Design-Build (D-B) projects from the design phases through construction completion, including design, expertise on complex engineering decisions involving multi-disciplinary work, scheduling, buyout, multi-phase construction, subcontractor oversight, and cost management.

The Lane Construction Corporation, Senior Project Manager/Project Director, 2013 – Present: Mr. Carter, a registered licensed PE in Virginia and North Carolina, served as Senior Project Manager for Lane on large complex D-B projects in the Mid-Atlantic region. He now serves as Project Director and is responsible for overall management of the design, project development from beginning to end, construction, quality, safety, and contract administration on these projects. He provides strategic planning and execution for projects, provides leadership for 20 plus superintendents and engineers, and works with design and construction teams on innovative techniques and means and methods. He organizes and assigns equipment, personnel, and subcontractor resources to execute each project. He ensures that all engineering work is integrated and in conformance with the contract documents. leads and implements safety initiatives to always ensure a safe working environment, establishes project objectives, policies, procedures and performance standards, sets and monitors budgets, and assures that a quality management system is in place.

The Lane Construction Corporation, Project Manager, 2006 – 2012: As Project Manager, Mr. Carter was responsible for project management and development of CPM schedules, managing numerous projects throughout North and South Carolina and the construction schedule, project buyout, and construction of pre-stressed girders and steel beams. He is skilled in stakeholder coordination, having negotiated with SCDOT, NCDOT and FHWA on all matters and additionally coordinated with City of Columbia, River Alliance, SCE&G, Inc. AT&T, USACE, DHEC, SHPO, and FHWA on projects as needed. He supervised/managed environmental obligations, all subcontractors' activities, and installation of underground sanitary, watermain and storm water utilities.

5. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:
Southern Illinois University at Edwardsville (SIUE), IL / B.S. / 1995 / Civil Engineering

6. Active Registration: Year First Registered/ Discipline/VA Registration #:
2015/ Professional Engineer/ VA #0402055381; Professional Engineer/ NC #032649

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

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

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

NCDOT, I-85 Widening, *Cabarrus County, NC*	**(DESIGN-BUILD)**
Name of Firm: The Lane Construction Corporation	**Project Role:** D-B Project Manager
Beginning Date: 2/2012	**End Date:** 6/2014

Specific Responsibilities: Mr. Carter was responsible for the project design and construction for this interstate widening project in a highly congested area near the Charlotte, NC metro region. Mr. Carter was fully integrated among the project team which included subcontractors and subconsultants. He provided supervisory direction on engineering decisions during construction. He was knowledgeable and proficient on engineering decisions related to design and/or construction. Mr. Carter communicated regularly with the Owner and had authority to act on behalf of Lane and shut down the project. Mr. Carter 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 North Carolina Board of Examiners for Engineers and Surveyors (NCBELS). Mr. Carter communicated frequently with the DM, CM and Quality staff. This project received multiple performance awards, including the National Asphalt Pavement Association "Asphalt Operations Safety Innovations" Award.

Project Relevance: This $148M D-B project consisted of widening approximately seven miles of I-85 from four to eight lanes and improvements to roads around the Bruton Smith Boulevard interchange. Similar to the proposed I-64

HREL Segment 4C project, this section of roadway required widening in order to reduce traffic congestion. This segment of roadway also encompassed two popular attraction destinations: Charlotte Motor Speedway and Concord Mills Mall, (North Carolina's No. 1 visitor attraction). Lane removed the deteriorated pavement of a four-lane divided highway and replaced and extended it with eight lanes of new concrete pavement. Lane designed and constructed an interchange and side road and service roads to improve access to I-85. The innovative MOT plan involved constructing a temporary two-span bridge over I-85 near the project's on-site pavement plant, with ramps down to the median, allowing access to the median construction zones of the project, and later access to the outside construction zones, unimpeded by existing traffic. **Relevant scope of work to the I-64 HREL Segment 4C Project:** Roadway, interstate rehabilitation; survey, environmental, geotechnical, phased construction; pavement replacement; median widening; 120,000 ADT; median access during construction; worked within the existing Interstate right of way; utility and other third-party coordination, Intelligent Transportation Systems, traffic control devices, transportation management plan, quality assurance and quality control, public involvement; adjacent project coordination, construction engineering and inspection, overall project management.

NCDOT, I-485/I-85 Interchange and Widening, *Charlotte, NC* **(DESIGN-BUILD)**

Name of Firm: The Lane Construction Corporation	**Project Role:** D-B Project Manager
Beginning Date: 1/2013	**End Date:** 6/2014

Specific Responsibilities: Mr. Carter was responsible for the project design and construction. Mr. Carter was fully integrated among the project team which included subcontractors and subconsultants. He provided supervisory direction on engineering decisions during construction. Mr. Carter was knowledgeable and proficient on engineering decisions related to design and/or construction. He communicated regularly with the Owner and had authority to act on behalf of Lane and shut down the project. Mr. Carter 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. Carter communicated frequently with the DM, CM and Quality personnel.

Project Relevance: This $98.7M D-B project consisted of the design and construction of the widening of I-85 and the interchange of I-85 and I-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. This innovative two-level turbine interchange allowed for a significant reduction of earthwork eliminating the need to haul material from off-site and drastically reducing costs by approximately $40M. The reduction in hauling reduced wear on existing infrastructure and the project's impact on traffic congestion, improving safety for the traveling public. *"Roads and Bridges" magazine named the I-85/I-485 turbine interchange the #1 road project in North America for 2012*. Innovative design reduced environmental, ROW and utility impacts. **Relevant scope of work to the I-64 HREL Segment 4C Project:** Roadway widening; 120,000 ADT, survey, structure and/ or bridge, environmental, geotechnical, hydraulics, traffic control devices, transportation management plan, right of way, utilities, public involvement relations, quality assurance and quality control, Intelligent Transportation Systems, signage and lighting, construction engineering and inspection, overall project management; Interstate rehabilitation; phased construction; pavement replacement; working within the existing Interstate right of way; utility and other third-party coordination; adjacent project coordination.

SCDOT, US 17 ACE Basin Widening and Bridge Replacement, *Greenpond, SC* **(DESIGN-BUILD)**

Name of Firm: The Lane Construction Corporation	**Project Role:** Senior Project Manager
Beginning Date: 6/2010	**End Date:** 2/2012

Specific Responsibilities: As the Senior Project manager, Mr. Carter was responsible for the project construction. He was fully integrated among the project team which included subcontractors and subconsultants. He provided supervisory direction on engineering decisions during construction. Mr. Carter was knowledgeable and proficient on engineering decisions related to design and/or construction. He communicated regularly with the Owner. Mr. Carter 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. Mr. Carter held weekly meetings with the DM, CM and Quality personnel.

Project Relevance: For this $76M D-B project in South Carolina, Lane widened more than 14 miles of the existing US-17 into a four-lane divided highway with three bridges. The project featured a limited roadway improvement to SC Route 303, SC Route 64 and various secondary and local roads to accommodate the widening. Lane was responsible for 100% of the construction for this project, including design, traffic control, hot mix asphalt, cement treated base, signals, drainage, excavation, guardrail, pavement markings, box culvert, subsurface weeps, surcharge, right-of-way services and acquisition, railroad coordination, and utility relations/community outreach efforts.

Relevant scope of work to the I-64 HREL Segment 4C Project: Roadway, survey, structure and/ or bridge, environmental, geotechnical, hydraulics, traffic control devices, transportation management plan, right of way, utilities, public involvement relations, quality assurance and quality control, signage and lighting, railroad, construction engineering and inspection, and overall project management.

8. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment.

Current Assignment: NCDOT I-440 Widening and Improvements Project
Role: Project Director
Anticipated Duration: Current through 5/2022 (Available)

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

1. Name & Title: **ANTHONY KONDYSAR, P.E., QUALITY ASSURANCE MANAGER**

2. Project Assignment: **QUALITY ASSURANCE MANAGER (QAM)**

3. Name of the Firm with which you are employed at the time of submitting SOQ.: **QUINN CONSULTING SERVICES**

4. Employment History: With this Firm 5 Years With Other Firms 30 Years

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

Quinn Consulting Services, Quality Assurance Manager, 2015 – Present: Mr. Kondysar provides professional services on both Design-Build (D-B) and Design-Bid-Build transportation and transit projects. He has held the positions of Quality Assurance Manager (QAM), Design Engineer, Construction Manager, and Project Manager. Mr. Kondysar's responsibilities as Quality Assurance Manager have included supervision of Quality Assurance inspection staff to verify all work performed on the Project and testing of materials is performed. He also monitors construction quality control programs and sampling is performed in accordance with the contract requirements and AFC plans and specifications.

Virginia Port Authority, Project Manager, 2007 – 2015: Mr. Kondysar served as Project Manager with Virginia Port Authority for multiple building, waterfront, rail, pavement and utility construction projects on Port Authority-operated shipping facilities in Norfolk, Portsmouth and Newport News, VA. His key responsibilities included oversight and consultation on civil design, waterfront structural, hydrographic surveying, architecture, environmental, fender repair, pavement maintenance, and security fencing term contracts. Mr. Kondysar represented Port interests on multiple major local infrastructure improvement projects and as D-B construction manager for the VDOT/VPA I-164 Median Rail Portsmouth/Chesapeake/Suffolk, VA.

Virginia Port Authority, QAM/ Project Manager, 2006 – 2007: Mr. Kondysar served as Quality Assurance Manager (QAM)/Project Manager with Alpha Corporation for various projects with the Virginia Port Authority. His responsibilities included initiation and review of reports, correspondence and other communications required to maintain project schedule and budget, identification of potential conflicts, and recommendation of cost effective and timely solutions. Mr. Kondysar was the liaison between the owner, contractor, and design team to optimize quality, schedule and budget concerns. He also reviewed change orders, claims and schedule modifications in accordance with contract terms and negotiated costs for changes in scope.

5. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:
Virginia Polytechnic Institute, Blacksburg / BS / 1985 / Civil Engineering

6. Active Registration: Year First Registered/ Discipline/VA Registration #:
Professional Engineer – Virginia / 1990 / 0402021246

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

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

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

VDOT, I-64 Capacity Improvements, Segment III, *York County, VA*	**(DESIGN-BUILD)**
Name of Firm: Quinn Consulting Services	**Project Role:** QAM
Beginning Date: 7/2018	**End Date:** 12/2021 (Estimated Completion Date)

Specific Responsibilities: Mr. Kondysar's responsibilities include assuring the project is in compliance with contract documents, including the VDOT Minimum QA/QC requirements on Design-Build projects. He manages all aspects of the QA program, and directs inspections by QA inspectors and independent QA testing technicians. Specifically, he monitors the implementation and functioning of the project-specific QA/QC Plan; chairs all preparatory meetings; initiates, distributes, and closes all project non-compliance reports (NCRs); oversees entries in the project Materials Book; approves project monthly payments; and maintains the project punch list. By chairing preparatory meetings, Mr. Kondysar actively partners with VDOT and contractors to ensure all parties are aware of new upcoming work and the requirements necessary to complete the work. He proactively reviews project documentation, such as source of materials and daily inspection reports, to ensure that all work conforms with contract documents and that non-conforming work is removed or repaired early in the construction process to prevent impacts on the project quality and schedule.

Project Relevance: This $244M project widens I-64 from approximately 1.15 miles west of Route 199 (Exit 234), to 1.05 miles west of Route 199, (Exit 242), extending the three-lane section of I-64 Segment II west for approximately 8.2 miles. The improvements include adding a 12-ft-wide travel lane and a 2-ft-wide shoulder in each direction. This work involves pavement reconstruction of the existing lanes, repair and widening of four bridges, three major culverts, and replacement of the two Queens Creek bridges. The I-64 East off-ramp to Route 143 is being reconstructed with a signalized stop installed at the end of the ramp. This project also includes sound wall installation, drainage improvements, storm water management facilities, sign structure replacements, corridor-wide landscaping, maintenance of traffic, work zone traffic control, and environmental monitoring.

Relevant scope of work to the I-64 HREL Segment 4C Project: This work is also taking place in the Commonwealth, so the project-specific QA/QC Plans will have to meet the same requirements as the plan Mr. Kondysar implemented on I-64 Segment III (Minimum Requirements for Quality Assurance and Quality Control on D-B and Public-Private Transportation Act Projects, July 2018). He has extensive experience managing the quality of past roadway projects that involved many of the same activities: earthwork, subgrade, asphalt paving, and pavement marking among other scope of work elements.

FHWA, I-564 Intermodal Connector, *Norfolk, VA* **(DESIGN-BUILD)**

Name of Firm: Quinn Consulting Services	**Project Role:** QAM
Beginning Date: 1/2018	**End Date:** 6/2021

Specific Responsibilities: Mr. Kondysar assisted and worked closely with the D-B contractor and the Eastern Federal Lands Division of the FHWA in preparing and implementing a project-specific QA/QC Plan that follows both the requirements set forth in VDOT's Minimum Standards for QA/QC on D-B and PPTA Projects as well as the materials acceptance and payment provisions/procedures prescribed in the contract by the FHWA. Mr. Kondysar partnered with FHWA, the EOR, and the CM to track all field design changes (FDCs), requests for information (RFIs), deficiencies, and non-conforming work (NCRs), and to ensure that all project changes were resolved in a way agreed to by all parties. Mr. Kondysar also coordinated all QA staff to ensure that QA inspectors and technicians were onsite to monitor and inspect all construction activities, including QC activities.

Project Relevance: This $92.5M D-B I-564 Intermodal Connector Project provides a safe high-speed connection from the existing I-564 to Norfolk International Terminals and Naval Station Norfolk. The project is approximately 2.82 miles of new four-lane limited access highway with a reconfigured commercial vehicle inspection station for the naval station. Improvements included construction of an interchange, bridges and local connectors, and SWM facilities.

Relevant scope of work to the I-64 HREL Segment 4C Project: Both the I-564 Intermodal Connector and the Boundary Channel Drive project consist of improvements to local roadways around major interchanges. The work includes improvement and reconstruction of many of the same elements (pavement, drainage, landscaping) and phased work on items such as maintenance of traffic (MOT) and Erosion and Sediment Control (ESC).

VDOT, I-64 Capacity Improvements- Segment I, *Newport News, VA* **(DESIGN-BUILD)**

Name of Firm: Quinn Consulting Services	**Project Role:** QAM
Beginning Date: 9/2015	**End Date:** 1/2018

Specific Responsibilities: Mr. Kondysar oversaw a team of independent QA inspectors and monitored the contractor's Quality Control team for compliance with both VDOT's Minimum QA/QC Standards on D-B projects and the project-specific QA/QC Plan. Mr. Kondysar performed all necessary QA functions, both in the field and in the office. Field work consisted of managing a team of inspectors for all aspects of the project and ensuring they were up to date on all approved project documentation. In the office, Mr. Kondysar maintained the project materials notebook and attended preparatory and progress meetings to ensure open lines of communication with all project stakeholders.

Project Relevance: This $101.5M project involved an operationally independent segment of the widening of I-64. The purpose of widening was to provide immediate congestion relief to the roadway corridor. The improvements included addition of one 12-ft-wide travel lane and one 12-ft-wide shoulder in each direction, thereby widening a four-lane section to six lanes, using the existing interstate median to limit the amount of right-of-way required to construct the project. **Relevant scope of work to the I-64 HREL Segment 4C Project:** Both projects are VDOT D-B projects, which he and the Quinn team have years of experience performing from start to finish. Project similarities include roadway, survey, environmental, geotechnical, hydraulics, traffic control devices, overhead sign structures, TMP, ROW, utilities, public involvement/relations and stakeholder coordination, QA/QC, landscaping, lighting, construction engineering/inspection and project management.

8. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment.
   Current Assignment: VDOT, I-64 Capacity Improvements Segment III Project
   Role: Quality Assurance Manager
   Anticipated Duration: Current through 12/2021 (Available)

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

1. Name & Title: **BRANDON SHOCK, P.E., DBIA, ASSISTANT DIRECTOR OF TRANSPORTATION**

2. Project Assignment: **DESIGN MANAGER**

3. Name of the Firm with which you are employed at the time of submitting SOQ.:
RINKER DESIGN ASSOCIATES, P.C.

4. Employment History: With this Firm 14 Years With Other Firms 8 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. Shock, proposed Design Manager, is a licensed Professional Engineer in VA, experienced working with VDOT and local jurisdictions, and has completed numerous D-B projects in the area. Mr. Shock will be responsible for coordinating the individual design disciplines and ensuring the overall Project design is in conformance with the Contract Documents, as well as overseeing the QA/QC program and overall Project construction.

Rinker Design Associates, P.C., Assistant Director of Transportation, 2020 - Present: Mr. Brandon Shock, a licensed P.E., has 22 years of experience in design and management of transportation projects, possessing strong qualifications in all aspects of roadway design. He has designed, managed, and provided design QA/QC services for various transportation improvement projects throughout Virginia. His experience includes oversight and management for secondary, primary, urban, and interstate projects which includes new alignments, widenings, reconstructions, structure replacements and innovative intersection designs in varying project delivery methods such as Locality, VDOT, and PPTA/Design-Build projects.

Rinker Design Associates, P.C., Senior Transportation Manager, 2007 - 2020: Mr. Shock was responsible for the management of complex public transportation engineering projects and specializing in design-build delivery for RDA in the Richmond, Virginia location. His responsibilities include project scoping, design development, scheduling, planning, and coordination with varying design disciplines and sub consultants throughout the life of a project. Among his other responsibilities were quality control and quality assurance, client interaction, preparation of proposal documents, and construction engineering services.

Johnson, Mirmiran & Thompson (JMT), Project Engineer, 2006 - 2007: Mr. Shock was a transportation engineer responsible for the design of roadway plans horizontal and vertical geometry, typical sections, roadway modeling, and cross sections.

5. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:
Fairmont State College, Fairmont, WV / BSCET / 1999 / Civil Engineering Technology

6. Active Registration: Year First Registered/ Discipline/VA Registration #:
VA 2008 / Professional Engineer / 0402041356

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

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

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

VDOT, I-64 Capacity Improvements - Segment II, *City of Newport News, VA*	**(DESIGN-BUILD)**
Name of Firm: RDA	**Project Role:** Deputy Design Manager
Beginning Date: 1/2016	**End Date:** 7/2019

Specific Responsibilities: As Deputy Design Manager, Mr. Shock was responsible for leading and managing staff across all disciplines for this $141M design-build project that widened and reconstructed 7.5 miles of interstate roadway from four to six lanes. Responsibilities included supporting the Design Manager in overall management, subconsultant oversight and management (geotechnical analysis, structural support, environmental evaluations, and landscaping), roadway design, drainage design, structure and bridge design, signing and pavement marking plans, ITS design, complex MOT/TMP development, and assistance with the design QA/QC program. Mr. Shock attended and heavily participated in weekly meetings (often leading the discussion) with the contractor. He attended and participated in many of the monthly meetings with the contractor, VDOT, and other stakeholders to update the design status and to facilitate resolution of design issues as they arose to avoid construction concerns. Mr. Shock also attended Comment Resolution Meetings where complex design issues were discussed and resolved in a manner acceptable to both VDOT and the

contractor. After construction began, he led the effort in addressing requests for information, reviewing shop drawings, and working with the contractor to resolve field issues and field design change requests.
Design services included the addition of one lane and full shoulder in each direction (with median), pavement reconstruction of existing lanes, and repair and widening of nine existing bridges and six major culverts. Other project concerns included survey, environmental permitting, right-of-way acquisition, and utility coordination.
Project Relevance: D-B project, improved connectivity and capacity, improved interchanges, interstate widening, complex MOT, bridge widenings, environmental, geotechnical analysis, design QA/QC, roadside drainage design, detailed H&HA design, E&S, traffic signage, SWM design, utility coordination and design, right-of-way acquisition, post design services.
Relevant scope of work to the I-64 HREL Segment 4C Project: Roadway, survey, structure and/ or bridge, environmental, geotechnical, hydraulics, traffic control devices, transportation management plan, right-of-way, utilities, public involvement relations, quality assurance and quality control, Intelligent Transportation Systems, signage and lighting, railroad, construction engineering and inspection, and overall project management.

VDOT I-581/Elm Avenue Interchange Improvements, *City of Roanoke, VA* **(DESIGN-BUILD)**

Name of Firm: RDA	**Project Role:** Deputy Design Manager
Beginning Date: 4/2012	**End Date:** 5/2015

Specific Responsibilities: As Deputy Design Manager, Mr. Shock was responsible for the coordination and management of efforts required for the design of construction plans associated with the widening and interchange capacity improvements. The $20 million interchange capacity improvement project featured modifications to both I-581 and Elm Avenue. I-581 consists of a six-lane divided highway, freeway/other principal arterial, and median barrier. Elm Avenue work included the four-lane divided highway, Urban Minor Arterial Typical Section with curb and gutter and raised median. His duties included direct supervision of roadway, drainage, stormwater management, maintenance of traffic, traffic signals, signing and pavement marking plans, as well as assisting with the management and coordination of sub-consultants for geotechnical, survey, and bridge designs. He was responsible for coordinating with the contractor, VDOT, the City of Roanoke, and utility companies to ensure that the design requirements of the contract were met and the design and associated services were expedited. He directly reported to the design manager on the status of design efforts, scheduling, report writing, and conducted task force meetings with the design and construction teams. This project won the 2016 VTCA Design-Build Honorable Mention.
Project Relevance: D-B project, improved connectivity and capacity, improved interchanges, interstate widening, structure and bridge replacement, geotechnical analysis, design QA/QC, roadside drainage design, E&S, SWM, utility coordination and design, right-of-way acquisition, post design services, stakeholder coordination / public outreach, client coordination/collaboration.
Relevant scope of work to the I-64 HREL Segment 4C Project: Roadway, survey, structure and/ or bridge, environmental, geotechnical, hydraulics, traffic control devices, transportation management plan, right-of-way, utilities, public involvement relations, quality assurance and quality control, signage and lighting, railroad, construction engineering and inspection, and overall project management.

VDOT, HRBT (sub to HDR), City of Norfolk, VA **(DESIGN-BUILD)**

Name of Firm: RDA	**Project Role:** RDA Design Manager
Beginning Date: 8/2019	**End Date:** Current (Design Services During Const)

Specific Responsibilities: As RDA's Design Manager, Mr. Shock is responsible for managing and leading the design efforts for the roadway, drainage, MOT, and utility design efforts for various portions of the overall HRBT project as a subconsultant to HDR (design value $4M; total construction value $3.8B). The design and construction JV teams have broken the project down into 5 segments for internal management – Segment 1(Hampton), Segment 2 (trestles bridges and tunnel), and Segment 3 (Willoughby), Segment 4 (Norfolk/Navy), Segment 5(I-564 Interchange). As a significant subconsultant to HDR, Mr. Shock managed and led the design for Segment 1 (MOT and utility design), Segment 3 (drainage design, MOT, and utility design), Segment 4 (roadway design, drainage design, MOT, and utility design), for Segment 5 (MOT and utility design). Additionally, Mr. Shock participated in design over-the-shoulder reviews, handoff meetings, and comment resolution meetings with VDOT. As part of the project, he provided interdisciplinary review and coordination of bridges, noise walls and retaining walls, ITS, signing and pavement markings, and erosion and sediment control. Finally, he coordinated QA/QC efforts within RDA to ensure that the plans and calculations are documented and accurate.
Project Relevance: D-B project, improved connectivity and capacity, accommodates express lanes, improved interchanges, interstate widening, geotechnical constraints and analysis, design QA/QC, roadside drainage design, E&S, SWM, utility design, post design services, stakeholder coordination, client coordination/collaboration.
Relevant scope of work to the I-64 HREL Segment 4C Project: Roadway, survey, structure and/ or bridge, environmental, geotechnical, hydraulics, traffic control devices, transportation management plan, right-of-way, utilities, public involvement relations, quality assurance and quality control, signage and lighting, railroad, construction engineering and inspection, and overall project management.

8. For Key Personnel required to be on-site full-time for the duration of construction, 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.

1. Name & Title: **JERZEY MYCKOW, SENIOR PROJECT MANAGER**

2. Project Assignment: **CONSTRUCTION MANAGER**

3. Name of the Firm with which you are employed at the time of submitting SOQ.: **THE LANE CONSTRUCTION CORPORATION**

4. Employment History: With this Firm 3 Years With Other Firms 41 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. Myckow, proposed Construction Manager, has over 40 years of experience managing heavy civil and construction projects, nationally and internationally. His wide range of experience provides the I-64 HREL Segment 4C Project the competency, accountability, and attention to detail necessary to successfully deliver the project. He will be on the project site for the duration of construction operations.

The Lane Construction Corporation, Senior Project Manager, 2019 – Present: Mr. Myckow is a Senior Project Manager at Lane. His responsibilities include management of design, construction, quality, and contract administration of design-build projects. He has a proven track record in safety, quality, timeliness and profitability. Mr. Myckow is skilled in team building and implementing employee involvement and quality control programs to increase morale and performance. He demonstrates excellence under pressure and very demanding timelines. He provides strategic planning and execution for projects and works with design and construction teams on innovative techniques and means and methods to execute projects. Mr. Myckow has experience working in Northern Virginia and worked/ coordinated with VDOT on his most recent design-build project.

Cherry Hill Construction, Construction Manager/ Project Manager, 2006 – 2019: For over 20 years, Mr. Myckow worked for Cherry Hill Construction (CHC), where he most recently, *served as a Project Manager*. His responsibilities included the review and approval of contract documents, negotiation of subcontracts, schedule, cost control, change orders, supervision of 150 craft employees, implementation of safety programs, relationship management with owners and stakeholders, among many other duties. *Mr. Myckow also worked as a Sector Manager*, in Abu Dhabi, UAE, where he supervised the construction of a tunnel/underpass structure and oversaw the infrastructure construction for a project with over 600 trade employees. *As Senior Construction Manager* he was responsible for the final construction phase of a chemical polyolefin plant and managed a team of over 2,500 employees that consisted of over 20 million man-hours, construction of 53 structures, 150,000 cubic meters of concrete, underground utilities, concrete trenches, pipes and drains, and roads.

5. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:
Warsaw University of Technology, Warsaw, Poland / 1978 / Master's in Civil Engineering

6. Active Registration: Year First Registered/ Discipline/VA Registration #: **Mr. Myckow holds a DEQ RLD (#RLD12831 - Expires 07/06/2022). Will hold a VDOT ESCCC prior to the commencement of construction.**

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

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

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

VDOT, I-66 Widening Inside the Beltway, *Alexandria, VA to Washington, DC*	**(DESIGN-BUILD)**
Name of Firm: The Lane Construction Corporation	**Project Role:** Construction Manager
Beginning Date: 3/2019	**End Date:** 8/2021 (Accelerated completion - Orig. 10/21)

Specific Responsibilities: As the Construction Manager, Mr. Myckow is responsible for managing the construction process, including all Quality Control (QC) activities to ensure the materials used and work performed meet the contract requirements and the "approved for construction" plans and specifications. His duties include 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, meetings with VDOT and plan-ahead scheduling. Mr. Myckow is on the project site for the duration of construction operations. His team received Lane's Safety Performance Award in 2019.

Project Relevance: This $85.6M 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 and 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. 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 movements 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. **Mr. Myckow coordinated and worked together with RDA on this project.**

Relevant scope of work to the I-64 HREL Segment 4C Project: Roadway, survey, structure and/ or bridge, environmental, geotechnical, hydraulics, traffic control devices, transportation management plan, right of way, utilities, public involvement relations, quality assurance and quality control, Intelligent Transportation Systems, signage and lighting, construction engineering and inspection, and overall project management.

MDOT SHA, MD 4 at Suitland Parkway Interchange, *Upper Marlboro, MD*

Name of Firm: Cherry Hill Construction	**Project Role:** Project Manager
Beginning Date: 1/2017	**End Date:** 12/2019

Specific Responsibilities: As the Project Manager for the MD 4 at Suitland Parkway Interchange project, Mr. Myckow was responsible and accountable for oversight of all construction activities. Some of his main responsibilities included, safety program management, effective communication with quality control for inspections and daily routines, scheduling, project cost, project controls, and monitoring contract progress with owner and subcontractors. Mr. Myckow successfully scheduled project timelines and milestones, supervised team members, and developed best practices and tools for project execution and management.

Project Relevance: This $78M project involved constructing a diamond interchange at MD 4 and Suitland Parkway/Presidential Parkway that enhances traffic operations at the busy intersection. The project also included realigning Pennsylvania Avenue Service Road and Armstrong Lane, reconstruction of on and off ramps to Joint Base Andrews, construction of a new signalized intersection at Presidential Parkway and Central Park Drive, a bike/multi-use path connecting Presidential Parkway and developments in the northwest quadrant near Old Marlboro Pike; and widening of the pre-existing bridge on Suitland Parkway. This work involved construction of new retaining wall, storm water management pond, 4,000 lf of relocated 36" water line, new storm drain system and over 500,000 CY of excavation. **Relevant scope of work to the I-64 HREL Segment 4C Project:** Roadway, survey, structure and/ or bridge, environmental, geotechnical, hydraulics, traffic control devices, transportation management plan, right of way, utilities, public involvement relations, quality assurance and quality control, signage and lighting, construction engineering and inspection, and overall project management.

PennDOT, I-83 Interchange at Route 124, *York, PA*

Name of Firm: Cherry Hill Construction	**Project Role:** Project Manager
Beginning Date: 2017	**End Date:** 2017

Specific Responsibilities: As the Project Manager, Mr. Myckow was responsible for the management of project engineering and construction staff, survey and quality; developed project schedule and created progress reports to track cost, coordinated subcontractors, and engineers' activities on site, monitored contract progress, and maintained an effective relation with the PennDOT. Mr. Myckow ensured all contract obligations were met successfully and avoided and resolved disputes to comply with contract documents.

Project Relevance: This $60M project, located on I-83 at Route 124 in York, PA, reconstructed and widened 1.3 miles of I-83 and rebuilt the Exit 18 interchange. The reconfigured ramps included two new loop ramps on the south side of the interchange, which eliminated the existing left turns from Route 124 East to I-83 North and from I-83 South to Route 124 East. This project involved construction of seven new bridges, two noise walls, two culverts, excavation, paving, new street lighting and traffic signalization. **Relevant scope of work to the I-64 HREL Segment 4C Project:** Roadway, survey, structure and/ or bridge, environmental, geotechnical, hydraulics, traffic control devices, transportation management plan, right of way, utilities, public involvement relations, quality assurance and quality control, signage and lighting, construction engineering and inspection, and overall project management.

8. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment.
   Current Assignment: VDOT, I-66 Widening Inside the Beltway D-B Project
   Role: Construction Manager
   Anticipated Duration: Current through 8/2021 (Available)

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: **I-264 Witchduck Road Interchange and Ramp Extension** Location: **Virginia Beach, VA** **(DESIGN-BID-BUILD)**	Name: **Kimely-Horn**	Name of Client./ Owner: **VDOT** Phone: **757.274.2552** Project Manager: **Dana Hurst, PE** Phone: **757.498.4123** Email: **dhurst@rkk.com**	**9/16/2021**	**Ongoing (est. 12/2021)***	**$105,399,865**	**$111,081,223**	**$73,313,890**

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:

- Roadway
- Survey
- Bridges and Structures
- Environmental
- Geotechnical
- hydraulics
- Traffic Control Devices
- TMP
- Right-of-Way
- Utilities
- Public Involvement/Relations
- QA/QC
- ITS
- Signage and Lighting
- Railroad
- Construction Engineering and Inspection
- Overall Project Management

Proposed Personnel on Project:

Ryan Terry (DBPM), James King, Jeff Rogers, Jack Lewis, Mike Jones, Mike Foran, CJ Mayo

PROJECT SCOPE

The I-264/Witchduck Road Interchange & Ramp Extension project is one of two adjacent projects which, when completed, will provide approximately four miles of interstate improvements from the Twin Bridges in Norfolk to the Witchduck Road interchange in Virginia Beach. The improvements will provide additional capacity, relieve daily congestion, reduce crash rates, and improve safety and traffic operations along the corridor. The project improvements include extending the new two-lane Collector-Distributor (C-D) roadway along eastbound I-264 from the adjacent I-64/I-264 Improvements project through the Newtown Road interchange to the Witchduck Road interchange, reconfiguring the south side of both interchanges to eliminate the weave movements, and constructing an overpass to connect Greenwich Road on the south side of I-264 and Cleveland Street on the north side.

RELEVANT PROJECT ELEMENTS TO I-64 HAMPTON ROADS EXPRESS LANES (HREL) SEGMENT 4C

**Finishing Contracts on Time or Earlier Than the Original Contract Fixed Completion Date: ***Although the project is three months behind schedule due to differing site conditions that delayed the pile installation for B602, Lane is confident the contract work can be completed and is committed to finishing the project at the current completion date. Lane has worked with VDOT to identify alternative phasing and sequencing to mitigate delays and eliminate construction joints and temporary work due to phasing to mitigate schedule delays. Lane's proactive approach towards alternative options has resulted in schedule improvement as well as superior quality, reduced impacts to traffic, and cost savings. A specific example of project time savings proposed by Lane and accepted by VDOT is the elimination of a temporary on-ramp required to maintain traffic by providing a weekend detour to complete the permanent work which resulted in overall less impacts to traffic, elimination of ground improvements, temporary pavement section, and temporary traffic barrier service.

Experience in Successfully Coordinating With Adjacent Projects: Multiple adjacent projects were constructed at the same time as the I-264 Witchduck project, requiring coordination with multiple General Contractors and local municipalities. The project extended the work performed on the I-64/264 Phase 1 project, necessitating coordination with the General Contractor and VDOT to complete work on a box culvert that required a change to the I-264 off-ramp at Newtown to maintain traffic. On the west end, there were two active projects ongoing during construction and two planned projects by the City of Virginia Beach that required coordination. The I-64 Express Lanes Segment 2 project required daily coordination of traffic control to allow each contractor to conduct work. Their contract included work in the median and shoulder; Lane took over from the I-64-264 Phase 1 project required only outside right lane closures. This required coordination with the City of Virginia Beach, VDOT, and the general contractor to ensure scopes of work were defined and the work put in place tied into Lane's scope of work. On Witchduck Road, another General Contractor was widening the road and required coordination with storm drain and traffic control. They performed weekend closures within the project limits to complete storm drainage that required coordination with our traffic control and access to Lane's work areas.

Delivering Projects in Developed Urban Corridors: The project improvements include extending the new two-lane Collector-Distributor (C-D) roadway along eastbound I-264 from the adjacent I-64/I-264 Improvements project through the Newtown Road interchange to the Witchduck Road interchange, reconfiguring the south side of both interchanges to eliminate the weave movements, and constructing an overpass to connect Greenwich Road on the south side of I-264 and Cleveland Street on the north side. The work on the city streets required communication with business owners, apartment complexes, the traveling public, and pedestrians to ensure construction impacts were mitigated to allow the community to continue to utilize the corridor during construction without disruption to their daily routines. The extensive water and sanitary sewer replacements required coordination with business owners to ensure shutdowns and bypass tie-ins were performed off-peak hours. The local nearby hotels preferred this work be completed during mid-day hours and other businesses preferred the work be done at night. Lane coordinated with VDOT's Senior Communications Officer to provide advance notifications of traffic shifts, road closures, and new roadway openings. Working in an urban environment also required silent running pumps since excavation work required well pointing and 24-hour pumping.

Use of Innovative Design Solutions and Construction Techniques: A value engineering contractor proposal (VECP) was submitted and accepted to replace a bridge with a sheet pile wall supported with tie backs. This saved the project $360,000 and eliminated maintenance and inspection of a bridge that would have had a cast in place concrete flat bottom deck submerged under water. This VECP included the design and construction. The new design required additional geotechnical work to confirm existing soil conditions, structural design along with revised drainage to account for the eliminated bridge deck, and revised parapet and guardrail to account for the eliminated terminal wall. The structural design included the coated sheet pile retaining wall with stainless steel tie backs anchored by concrete deadmen, and revised concrete cap and moment slab for the parapet and railing. Lane also constructed a "floating cofferdam" to construct the bridge piers in Lake No.2. Due to the water depth and battered pile, a typical sheet pile design would have required the sheets be pushed away from the battered pile to achieve minimum embedment to install walers or divers to install the walers underwater. Since this was impractical, Lane proposed a "floating cofferdam" which consisted of a water tight form system. *This innovative system saved time and resulted in the least intrusive and most environmentally friendly construction method.*

Limiting Impacts to the Traveling Public and Affected Businesses and Communities, Including Commitments to Effective Strategies to Minimize Congestion During Construction: The improvements will provide additional capacity, reduce daily congestion, and improve safety and traffic operations in the corridor. To minimize lane closures and impacts to traffic, Lane proposed several variances to the contract. The contract called for widening activities on the C-D lanes to occur at night and on weekends under lane closures. To eliminate lane closures, Lane proposed a traffic shift and to allow all the construction to occur behind temporary barrier wall. This traffic shift resulted in less impacts to traffic. Lane closures on I-264 are required to be picked up by 5am on Weekdays or significant user fees would be incurred. Lane proposed a revised sequence, requesting a one-hour variance to allow the closure to extend to 5am which would allow the erection to be completed in a total of 9 days and eliminated the concurrent closures in both directions. Lane executed the work according to the revised plan in 9 days which reduced the projects impact and greatly benefitted the traveling public. **MOT:** To minimize disruption to the estimated 55,000 average daily travelers, the project has been divided into 23 separate construction phases as part of a complicated maintenance of traffic plan. Two Lane crews were assigned to cover both day and night work to effectively manage the MOT requirements for the work, in addition to the subcontractor used to install and maintain the lane closures on I-264.

Developing and Managing Effective Communication Strategies With Business Owners and Other Key Stakeholders: Lane worked collaboratively with VDOT's Senior Communications Officer for conveying construction activities and traffic impacts, as well as developing plans to mitigate impacts to business owners and residents. Lane also worked directly with the City of Norfolk, Virginia Beach, Hampton Roads Sanitation District, local churches, business owners, and residents. A weekly stakeholder meeting was implemented to address their specific needs and provide a direct line of communication to the project team. This helped ensure approvals, such as color samples, materials, and lane closures, were approved in a timely manner and eliminated submittal revisions. **ITS/TTMS:** Corridor ITS improvements included 1 addition CCTV camera, 3 DMS signs, 7500 LF of fiber optic cable, field ethernet switches and interconnectivity to existing VDOT fiber systems. **Roadway:** The Lane Team is extending a C-D road, reconfiguring interchanges, and installing new concrete barrier wall and guardrail. **Bridges and Structures:** The project features a new signature bridge that includes aesthetic enhancements. The new bridge over I-264 is constructed with steel girders that span over Waters of the U.S. This presented challenges for access and required Lane to be environmentally conscious of the impacts. The second bridge is a new two-span bridge, while the third bridge is a widening of the existing three-span bridge over railroad tracks constructed on drilled shafts for the two piers and 12-inch concrete pile for the abutments. **Geotechnical:** Due to anticipated settlements in excess of 30 inches, the MSE walls were built in two stages to allow settlement prior to placement of the concrete panels. The first stage included construction of permanent wire walls and surcharge.

EVIDENCE OF PERFORMANCE

The project has consistently been one of the highest environmentally rated major projects in the Hampton Roads District. Lane takes great pride in staying "green" with both VDOT Water Quality and NPDES.

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: **395 Express Lanes** Location: **Fairfax County, City of Alexandria and Arlington County, VA (DESIGN BUILD)**	Name: **AECOM**	Name of Client./ Owner: **Transurban USA** Phone: **571.419.6100** Project Manager: **Jeff Taylor** Phone: **571.419.6100** Email: **JeffTaylor@transurban.com**	**11/2019**	**11/2019**	**$336,303**	**$350,883**	**$350,883**

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:

- Design-Build
- Roadway
- Survey
- Bridges and Structures
- Environmental
- Geotechnical
- hydraulics
- ITS/ Traffic Control Devices
- Transportation Management Plan
- Right-of-Way
- Utilities
- Public Involvement/Relations
- QA/QC
- Signage and Lighting
- Railroad
- Construction Engineering and Inspection
- Overall Project Management

Proposed Personnel on Project:

Chris Lund (Lane)

PROJECT SCOPE

The 395 Express Lanes project is an 8-mile extension of the existing 95 Express Lanes in Fairfax County, the City of Alexandria, and Arlington County, Virginia. The 395 Express Lanes extends from the current northern terminus of the 95 Express Lanes at Turkeycock Run, near Route 236 (Duke Street) in the south, to the vicinity of Eads Street near the Pentagon in the north. The primary objective of the 395 Project was to convert the two existing HOV lanes on I-395 to three High Occupancy Toll (HOT) lanes, which are used by HOV 3+ vehicles for free, and by other permitted vehicles for a fee (toll). The completed 395 Express Lanes ties into the existing 95 Express Lanes and now operate as a single, fully-integrated Express Lanes facility. The 395 Express Lanes were built largely within VDOT's right of way and the pre-existing footprint of the I-395 HOV lanes; additional scope of work includes installation of signage, toll systems, and an active traffic management system. Another scope of work element was the design and construction of three groupings of sound barriers; as well as roadway, traffic signal, and parking lot improvements on the Pentagon reservation. Additionally, the reconstruction and reconfiguration of a portion of the South Parking Area of the Pentagon reservation was required to enhance circulation for transit buses and carpools. The Pentagon South Parking Lot's new dedicated bus loop is intended to decrease conflicts between passenger vehicles and buses. Additional features include new pedestrian sidewalks with ornamental fencing and barriers; new signage and pavement markings indicating the slug lanes within the parking lot; and new lighting for the bus loop, sidewalk and slug lanes.

RELEVANT PROJECT ELEMENTS TO I-64 HAMPTON ROADS EXPRESS LANES (HREL) SEGMENT 4C

Finishing Contracts on Time or Earlier Than the Original Contract Fixed Completion Date: The project schedule and delivery targets were met in a timely manner. The Lane Team held regularly scheduled construction progress meetings to review construction progress and review look-ahead project activities. This coordination became seemingly more important as the heavy civil work overlapped the specialized technical work, particularly in the area where the toll gantries were constructed. The Team developed an accurate and robust Baseline Schedule to better serve Transurban and VDOT, all associated stakeholders, and the traveling public.

Experience in Successfully Coordinating With Adjacent Projects: The construction Team coordinated with adjacent "395 NB/Glebe Rd Paving Operation Project", which involved paving the right travel lane/shoulder, Glebe Road merge lane, and 1.2 miles of the NB 395 North of Glebe Road. Weekly meetings were held with field management, paving subcontractor, and VDOT project manager.

Delivering Projects in Developed Urban Corridors: The 395 Express Lanes are open and offer drivers more ways to travel in Northern Virginia right up to the Washington, D.C. line. The 395 Express Lanes serve as a community enhancement by reducing congestion, mitigating noise, reducing local "cut-thru" traffic and improving travel times in the corridor. The improved Pentagon South Parking Lot provides smoother travel for pedestrians, drivers and bus riders on the Pentagon Reservation.

Use of Innovative Design Solutions and Construction Techniques: Lane incorporated innovative and sustainable elements to the project, such as, the aesthetic finish on the land owner side of sound barriers and retaining walls. Goals for sustainability focused on recycling materials, managing stormwater, minimizing degradation of water quality, reducing fuel use and limiting emissions. During the design of the sound walls, Lane focused on limiting the amount of clearing required for installation near residential areas. Additional surveys were performed so that sound wall alignment reduced impacts to existing vegetation; this minimized the amount of vegetation lost during construction and allowed the landscaping component of the project to be used for landscape enhancements elsewhere in the corridor. Lane's hot mix asphalt plant operated at a low emission threshold and incorporated recycled materials. By operating in this manner and under Lane's HMA Plant Guide for Efficient and Environmentally Sound Operation our plant personnel minimized emissions and optimized fuel efficiency.

Limiting Impacts to the Traveling Public and Affected Businesses and Communities, Including Commitments to Effective Strategies to Minimize Congestion During Construction: Lane put in place a Maintenance of Traffic (MOT) plan that provided a safe work zone to construction personnel and the traveling public, minimized commuter disruption, and maximized productivity during allowable work shifts. TMP and MOT plans addressed procedures required when directional change was made. MOT/sequencing of construction, included coordination of phased work. The TMP and MOT plan eased congestion and allowed smooth and safe travel through the work zone minimizing weaving; placing linear approach and barrier patterns; minimizing impacts to GP lanes during HOV/Express Lanes construction; and maintaining maximum safe speeds through the corridor. Our Design-Build Team will study the I-64 corridor and provide a similar MOT and TMP plan that will limit impacts to the traveling public and adjacent businesses and communities, including effective strategies to minimize congestion during construction.

Developing and Managing Effective Communication Strategies With Business Owners and Other Key Stakeholders: Lane was responsible for coordination with the affected public and private entities (third parties) and local jurisdictions, including but not limited to, VDOT, Arlington County, City of Alexandria, Fairfax County, District of Columbia Department of Transportation, FHWA, Department of Defense (Pentagon Reservation), NPS, WMATA and utility owners. Public involvement was critical to the overall success of the Project. The development of a Communication Plan, which included a Public Information Plan (PIP), was addressed during Early Work; the team strictly adhered to the PIP for coordination and communication with third-party stakeholders and local communities throughout design and construction. Lane knows that the keys to successful design integration are controlled by effective communication, efficiency, and pre-established processes. Utilizing best practices and lessons learned from previous D-B projects allowed the Team to produce design deliverables structured to deliver high-quality construction at the earliest possible Service Commencement date. The D-B discipline leads collaborated and interacted with the personnel aligned in similar activities for Transurban, VDOT, and other involved stakeholders, such as the Pentagon through weekly Technical Work Group (TWG) meetings.

Structures/Bridges: Sound barriers were a critical component of the 395 Express Lanes project. The barriers covered most of the length of the project. Performing the noise analysis and developing the design for these barriers was a critical component of the Early Works, since the fabrication of the sound barriers needed to begin as early as possible to allow the construction of critical walls to occur on schedule. There were two main categories of bridge work in the project scope, underdeck and deck work; both categories of work were performed concurrently with proper planning and coordination. This project also included a unique element, the incorporation of the rehabilitation of the existing Department general purpose bridges on or over I-395. The project also included ITS structures, four gantries, and modification and repair of 18 bridges.

ITS/ TTMS: ITS work is unique due to the specialized nature of the design and construction. The review process occurred at various stages through the TWG's. The TTMS Interface Plan was provided for use as a tool to coordinate the efforts of the parties involved to successfully deliver the 395 Express Lanes project. The document defined the specific roles and responsibilities of Lane and the TTMS Contractor (Transurban) to deliver the design, installation/construction turnover, testing and integration of the various TTMS components. This TTMS Interface Plan required a commitment on behalf of all parties involved in the Project to work together and coordinate on a regular basis to discuss issues and develop workable solutions in hoping to avoid potential project delays. The Lane Team turned over the first toll site in accordance with the provided checklist to the TTMS Contractor 210 days prior to the Service Commencement date.. **Collective Team Member Experience:** RDA provided MOT support during construction to resolve design issues and better align to Lane's construction work plans.

EVIDENCE OF PERFORMANCE

"This corridor is the economic backbone of Virginia, and this project will significantly reduce congestion in it; sitting in traffic hurts our economy, and it keeps people away from the ones they love." – said VA Governor, Ralph Northam

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:

- Design-Build
- Roadway
- Survey
- Bridges and Structures
- Environmental
- Geotechnical
- hydraulics
- Traffic Control Devices
- Transportation Management Plan
- Right-of-Way
- Utilities
- Public Involvement/Relations
- QA/QC
- Intelligent Transportation System
- Signage and Lighting
- Railroad
- Construction Engineering and Inspection
- Overall Project Management

PROJECT SCOPE

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, new bridges and widenings, 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 design-build joint venture prime contractor team, Lane provided nearly all of the project supervision and workforce, plus all asphalt paving as a subcontractor to the CJV.

RELEVANT PROJECT ELEMENTS TO I-64 HAMPTON ROADS EXPRESS LANES (HREL) SEGMENT 4C

Finishing Contracts on Time or Earlier Than the Original Contract Fixed Completion Date: **The project was completed one month ahead of schedule.** The D-B Team worked hard to expedite both the design and construction schedules which resulted in early completion.
Experience in Successfully Coordinating 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.
Delivering Projects in Developed Urban Corridors: The Capital Beltway was originally envisioned as primarily a bypass for long-distance eastern seaboard traffic to avoid driving directly through Washington, DC. However, the explosive growth both of housing and businesses in the Washington suburbs following the Beltway's completion quickly made the Beltway the area's "main street" for local traffic as well. Numerous large shopping malls, community colleges, sports and concert stadiums, and corporate employment centers were purposely built adjacent to the Beltway, and these added greatly to the traffic, as has the passenger growth of regional airports accessed by the Beltway. The 495 Express Lanes cross several streets and busy state routes, and included interchange reconstruction on the nation's 4th ranked busiest highway, requiring intensive MOT planning and coordination to keep the congested traffic moving throughout construction. "As the primary self-perform entity in the Fluor-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) in an October 27, 2010 letter of recommendation for Lane. According to the FHWA Sources of Congestion Report, the "Corridor ranks in the top ten most congested highways in the U.S and No. 1 on the East Coast."
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 Effective Strategies to Minimize 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 businesses.
Developing and Managing Effective Communication Strategies With Business Owners and Other Key Stakeholders: 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. More than 2000 public outreach meetings were conducted. One example of the success of this approach was the closure of the southbound I-495 Bridge at Chain Bridge Road in Tysons Corner. The planned demolition and reconstruction of the new bridge had the potential to disrupt traffic for more than 100,000 residents and business employees in the area. The team blanketed the area with early notification of the weekend closure/detour options using the project website, media announcements, email, telephone calls, postcards, and door-to-door outreach. When the work was completed, not a single complaint was received from businesses, motorists, or area residents.
Tolled HOV/Express Lanes and ITS/TTMS: Lane was responsible for construction of the infrastructure and gantries necessary to accommodate the ITS and electronic tolling equipment. Lane was also responsible for the construction integration of the toll design and features which was closely coordinated with Transurban. **Roadway Widening:** Fifty-six lane miles of new interstate roadway were constructed, including a state-of-the-art, open-road tolling system. The team constructed three new access points and upgraded 12 key interchanges that increased capacity and mobility, improved driver safety and removed operational deficiencies, with minimal impact to the traveling public, residences, and businesses. **MOT/TMP:** A key challenge on the 495 Express Lanes project was accommodating extreme volumes of commuter, residential, and commercial vehicular traffic. The contract required the project to maintain the existing traffic 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. Additionally, the alignment of many of the existing bridges over the Beltway could not be shifted, so new replacement bridges were built on the same footprint as the old structures. **Structures/Bridges:** Our team widened and/or replaced 58 bridges on this project adjacent to high ADT count/live traffic and also replaced 10 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. There were seven new bridges carrying I-495 over US 50 (4) and Chain Bridge Road (3). One pedestrian bridge was replaced and another lengthened, with 36 expressway ramp bridges, major ATMS and construction of more than nearly 13 miles of new sound walls. **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

The project also received the following awards: 2013 Prime Contractor of the Year award from VDOT for outstanding performance and participation in the DBE Program. ARTBA 2011 Work Zone Safety Awareness Award. NAPA 2012 Operations Safety Innovation Award. VDOT and VA Megaprojects Team, 2011 Commonwealth of VA Award of Excellence, Integrated Communications. 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(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: **City of Newport News and York & James City Counties, VA** **(DESIGN BUILD)**	Name: **Allan Myers**	Name of Client: **VDOT** Phone: **703.259.2734** Project Manager: **Mike Davis** Phone: **757.925.2680** Email: **mike.davis@vdot.virginia.gov**	**01/2016**	**05/2019**	**$138,747 (Original)**	**$141,370 (Actual or Estimated)** *(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.

Similar Scope of Work:

- Design-Build
- Roadway
- Survey
- Bridges and Structures
- Environmental
- Geotechnical
- Hydraulics
- Traffic Control Devices
- Transportation Management Plan
- Right-of-Way
- Utilities
- Public Involvement/Relations
- QA/QC
- Intelligent Transportation System
- Signage and Pavement Marking
- Lighting
- Railroad Coordination
- Construction Engineering and Inspection
- Overall Project Management

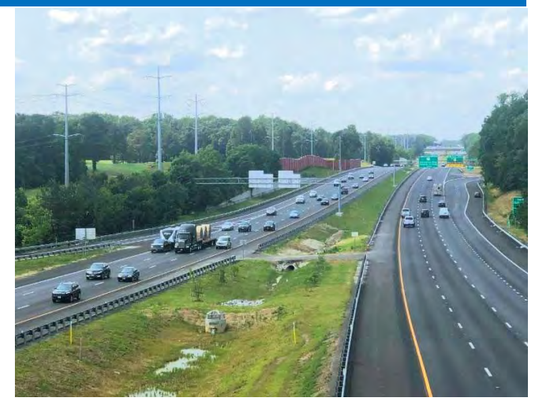
Proposed Personnel on Project:

Brandon Shock, P.E., DBIA (RDA)
Song Kim, P.E. (RDA)
Andrew Knowlton, P.E. (RDA)
Nikhil Desphande, PE, CSM (RDA)
John Myers (RDA)
Paul Zhang (DMY)

PROJECT SCOPE

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. 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 widened approximately 7.5 miles of roadway and reconstructed 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, guardrail, and several retaining walls. Furthermore, ITS is being impacted and replaced, along with numerous overhead sign structures.

RELEVANT PROJECT ELEMENTS TO I-64 HAMPTON ROADS EXPRESS LANES (HREL) SEGMENT 4C



Finishing Contracts on Time or Earlier Than the Original Contract Fixed Completion Date: 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.

Experience in Successfully Coordinating With Adjacent Projects: The design development and initial construction of Segment II began while Segment I was still in construction. As a result, RDA had to meet with VDOT and the adjacent construction team to coordinate many facets of work (i.e. MOT, signing, temporary drainage, SWM and outfall analysis).

Delivering Projects in Developed Urban Corridors: I-64 Segment II is adjacent to the City of Williamsburg and some very established adjacent properties (i.e. Williamsburg Golf Club and the Naval Weapons Station). As a result, the design had to be wholly contained along both of these properties to ensure that there was no encroachment. With respect to the golf club, RDA had to evaluate and design retaining walls and a sound wall to avoid impacts to property and impacts due to noise. With regards to the Naval Weapons Station, RDA ensured that the roadway offset was of sufficient distance to avoid vehicular strikes to the security fence and to avoid potential scaling over the fence.

Use of Innovative Design Solutions and Construction Techniques: In order to create more green space and to reduce significant median barrier construction, RDA's 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 to 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, RDA designed dissimilar beams to shallow up the depth and achieve adequate clearance.

Limiting Impacts to the Traveling Public and Affected Businesses and Communities, Including Commitments to Effective Strategies to Minimize Congestion During Construction: The design and construction of this segment of roadway interfaced with the I-64 Segment I project. Several phases of MOT required RDA to relocate or change the signage on the adjacent project. Additionally, the design required adjustments to accommodate the final design features of the adjacent segment to include the relocation of an emergency crossover.

Developing and Managing Effective Communication Strategies With Business Owners and Other Key Stakeholders: The design-build team worked with District Public Relations as well as Traffic Management staff to ensure that the public was well informed and prepared for upcoming work that would impact traffic or impending traffic shifts. Additionally, the team reached out to the adjacent municipalities to obtain information on items of a sensitive nature and to coordinate municipally owned utilities.

Roadway: This project widened the interstate from four to six lanes for approximately 7.5 miles. The majority of the widening was to the median and included the reconstruction of the existing lanes using FDR (Full Depth Reclamation).

Bridges and Structures: The project widened nine bridges. There were four sets of bridges crossing over local roadways and an additional solo bridge in the eastbound direction over an underpass ramp in an interchange. The bridge widenings to the median created constricted spaces between them and were developed in unison rather than separately to provide efficiency in construction. Additionally, RDA provided design for box culvert extensions at locations, as well as several retaining wall in addition to the special design raised median retaining walls throughout the eastern portion of the project.

Hydraulics: The project included three box culvert crossings that required detailed H&HA analyses for extensions. Additionally, the project included over 25 SWM facilities in non-permeable soils and extensive E&S controls to ensure compliance with regulatory requirements.

ITS: The project corridor contained existing ITS for the integrated traffic cameras and DMS signage. The proposed design impacted the ITS infrastructure which required that it be replaced in-kind. In order to accommodate the new ITS construction, RDA had to not only design the new system, but also temporary connections from one side to the other to ensure that the facilities would be maintained at all times.

EVIDENCE OF PERFORMANCE

Although construction for the project was initially behind schedule, the implementation of the VE and assumption of its potential risk impact allowed the D-B 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.

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: **Arlington & Fairfax Counties, VA** **(DESIGN BUILD)**	Name: **The Lane Construction Corporation**	Name of Client: **VDOT** Phone: **703.259.2734** Project Manager: **Mark Gibney, P.E.** Phone: **703.259.2734** Email: **mark.gibney@vdot.virginia.gov**	**06/2018**	**8/2021 (est. Early Completion)**	**$85,655**	**$1.8M*** (Estimated)	**$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:

- Design-Build
- Roadway
- Survey
- Bridges and Structures
- Environmental
- Geotechnical
- Hydraulics
- Traffic Control Devices
- Transportation Management Plan
- Right-of-Way
- Utilities
- Public Involvement/Relations
- QA/QC
- Intelligent Transportation System
- Signage and Pavement Marking
- Lighting
- Construction Engineering and Inspection
- Overall Project Management

Proposed Personnel on Project:

Song Kim, PE (RDA)
Nikhil Desphande, PE, CSM (RDA)
Adam Welschenbach, PE (RDA)
John Myers (RDA)
Jerzey Myckow (LANE)

PROJECT SCOPE

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 $85.6M 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 and 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. 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 movements have operational and safety issues due to maneuvering, especially during morning and evening peak periods. Our direct access design will save time for motorists bound for the Metro station time and reduce traffic on already congested Route 7 in these two intersections.

RELEVANT PROJECT ELEMENTS TO I-64 HAMPTON ROADS EXPRESS LANES (HREL) SEGMENT 4C

Finishing Contracts on Time or Earlier Than the Original Contract Fixed Completion Date: Although the construction is on-going, our design is complete. In comparison to the detailed CPM schedule submitted with the proposal, the design was delivered 2 months ahead of schedule, putting the project on the right track for timely delivery.

Experience in Successfully Coordinating With Adjacent Projects: 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. Additionally, RDA coordinated with WMATA whose facility was within feet of the proposed improvements to ensure that the design and construction would not affect WAMATA's operations.

Delivering Projects in Developed Urban Corridors: The corridor is constrained by barrier walls along the outside and WAMATA in the median which created constricted spaces to build the widening – in some cases, as little as one foot of space to other facilities in the corridor.

Use of Innovative Design Solutions and Construction Techniques: Innovation on the project focused on numerous small items. 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. This 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.

Limiting Impacts to the Traveling Public and Affected Businesses and Communities, Including Commitments to Effective Strategies to Minimize 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 performed an increased amount of nightwork (originally scheduled as daywork) to minimize congestion along the corridor. 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.

Developing and Managing Effective Communication Strategies With Business Owners and Other Key Stakeholders: 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 performed an increased amount of nightwork that was originally scheduled as daywork to minimize congestion along the corridor.

Roadway: The project required widening to provide an additional lane in the eastbound direction for tolling purposes. Shoulder strengthening to the outside was performed in order to shift traffic and construct to the median. WMATA tracks in the median of I-66 were also a significant constraint.

Bridges and Structures: The project contained 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 WMATA tracks and structures carrying WMATA over the same side roads as the VDOT structures. The proximity of the WMATA structures to the widened bridges is on the average about six feet. The closest is one and half feet.

Hydraulics: The project paralleled 4 Mile Run which required mitigation strategies to ensure that environmental constraints associated with the stream were appropriately addressed. Additionally, the project was challenged by the constraints imposed by the urban nature of the project. Many pipes required rehabilitation, which in turn required the design to find other ways to convey flows when capacity was reduced by the rehabilitation. Finally, SWM was a challenge that required the full toolbox of analysis and design strategies to ensure that the design met the requirements. As a result, RDA had to work closely with the VDOT NOVA staff to ensure that there was full consensus.

ITS: Coordination with the ITS contractor was critical to ensure that no impact to in-ground infrastructure or overhead facilities were encountered.

*(*Contract value increased due to Owner requested change orders)*

EVIDENCE OF PERFORMANCE

There were no construction delays due to utility coordination/relocation. Design was completed as scheduled, with utility coordination completed ahead of schedule to remove utilities from the critical path. Less than one MOT review comment per plan sheet was received for more than 21 miles of MOT design to include mainline, connectors, and two significant detours for overnight work. The I-66 Eastbound Widening Inside the Beltway Project received Lane's Safety Performance Award in 2018.

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: **Transform I-66 Outside the Beltway, Segment IC East** Location: **Fairfax and Prince William Counties, VA (DESIGN BUILD)**	Name: **FAM Construction LLC**	Name of Client: **FAM Construction LLC/Express Mobility Partners** Phone: **317.513.3799** Project Manager: **Tom Heil** Phone: **571.485.0387** Email: **theil@fam66.us**	**06/2019**	**12/2022 (Estimated)**	**$39,000**	**$39,000**	**$3,175**

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.

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- Utilities
- Public Involvement/Relations
- QA/QC
- Intelligent Transportation System
- Signage and Pavement Marking
- Lighting
- ITS
- Overall Project Management

Proposed Personnel on Project:

Brandon Shock, PE, DBIA (RDA)
Rick DeLong, PE (RDA)
Song Kim, PE (RDA)
Adam Welschenbach, PE (RDA)
Tony Dean (RDA)
John Myers (RDA)

PROJECT SCOPE

As part of the I-66 Transform Project, RDA was contracted by FAM to lead Segment 1C East. This segment is approximately 4,300 LF of interstate widening over US Route 29 and includes improvements to the interchange. More specifically, this segment includes complete reconstruction of the I-66 bridges over US Route 29 and ramp tie-ins due to raising the bridges several feet to meet VDOT clearance requirements. RDA's design focused on widening I-66 mainline to include the future toll facility lanes, new bridges over US Route 29, a box-culvert extension, installation of sound walls/retaining walls and removal of the existing roadway bifurcation and extensive MOT to mitigate impacts to I-66 and US Route 29 users.

RELEVANT PROJECT ELEMENTS TO I-64 HAMPTON ROADS EXPRESS LANES (HREL) SEGMENT 4C

Finishing Contracts on Time or Earlier Than the Original Contract Fixed Completion Date: Despite the implementation of a comprehensive VE modification and assumption of its potential risk impact, our team created a more construction-friendly design that allowed the contractor to achieve substantial completion ahead of schedule to receive associated incentives.

Experience in Successfully Coordinating With Adjacent Projects: Given that this section of the project is only one piece of an entire corridor improvement program, RDA had to coordinate closely with abutting projects at either end. This coordination included roadway, drainage and MOT coordination to ensure that seamless integration of the projects was achieved.

Delivering Projects in Developed Urban Corridors: This project on I-66, the busiest interstate in Virginia and one of the busiest in the country, replaces the two parallel bridges over US Route 29, a heavily congested corridor in its own right. The abutments were designed as stub abutments with MSE walls to shorten the bridge while accommodating future improvements along US Route 29. Additionally, the design and construction maintained an existing shared-use path during construction and reconstructs it as part of the finished product. Finally, avoidance of utility conflicts along US Route 29 were critical to the success of the project's aggressive schedule (approved construction plans in six months).

Use of Innovative Design Solutions and Construction Techniques: RDA's design improved how noise walls were integrated into the surrounding community by locating them closer to the roadway and allowing greater buffer to the adjacent homes. The design also minimized the ROW takes associated with SWM by utilizing smaller and more efficient facilities. Finally, traffic was maintained/sequenced to expedite construction while ensuring that adjacent sections were unaffected.

Limiting Impacts to the Traveling Public and Affected Businesses and Communities, Including Commitments to Effective Strategies to Minimize Congestion During Construction: The TMP/SOC (MOT) design for Segment 1C East required significant coordination with the adjacent contractors to maintain traffic on I-66 and US Route 29 ramp connections. Safety, a key focus, was designed into the project as part of the RDA Team's strategic development—not only from a traffic operations perspective, but also from an end user perspective. Working closely with FAM, the pedestrian facility and traffic shifts and detours, were developed as such to ensure Contractor had adequate space to work given urban environment constraints of the interchange and everyday users were adequately separated from construction activities.

Roadway: This project involves the widening of approximately 1 mile of Interstate 66 to include future toll facilities and includes minor interchange ramp adjustments. RDA prepared a Hydrologic and Hydraulic Analysis for a box culvert extension, to include HEC-RAS model development and assessment of hydrology for the adjacent unnamed tributary. RDA further prepared a design waiver to demonstrate that the culvert can be extended despite its inadequate capacity without impact to the roadway or adjoining landowners.

Bridges and Structures: 1C East includes complete reconstruction of the I-66 bridges over US Route 29 and ramp tie-ins due to raising the bridges several feet to meet AASHTO clearance requirements. In coordination with VDOT, the project team worked together to prepare a design waiver for meeting 16' vs. the 16.5' VDOT requirement through mitigations developed in design, such as under bridge lighting and signage. The project team was also responsible for the design of 1,200 LF of combination retaining wall/sound wall design, along with 2,100 LF of ground-mounted sound walls to minimize noise impacts to the adjacent community. The project also included approximately 3,500 LF of retaining wall (post/panel, MSE and RW-3 type wall in varying locations).

Hydraulics: The design included all roadway drainage, cross drainage (including a box culvert), E&S, and SWM to meet the RFP and VDOT requirements.

ITS: As part of the turnkey services required for this segment of the corridor, RDA provided all of the ITS infrastructure design (civil works packages) to ensure that cameras, tolling, DMS, and conduits were sized and placed to facilitate the construction and integrated with the corridor design.

Signage and Lighting: As part of their design services, RDA provided full signing, pavement marking, and lighting plans to meet VDOT criteria. Overhead sign structures were designed to provide interchange messaging.

Utilities: RDA provided utility coordination to ensure that the reconstruction and widening of I-66 along the project corridor did not adversely impact utilities and to relocate them when impacts were unavoidable. RDA provided this service for the entirety of the Transform66 corridor.

EVIDENCE OF PERFORMANCE

Design was completed in less than eight months from NTP to be released for construction (RFC).