

**STATEMENT OF QUALIFICATIONS**

**I-66 EASTBOUND  
WIDENING INSIDE  
THE BELTWAY**

**FROM: DULLES CONNECTOR ROAD (ROUTE 267)  
TO: FAIRFAX DRIVE (237)**

**STATE PROJECT NO.: 0066-96A-417, P101, R201, C501  
FEDERAL PROJECT NO.: NHPP-066-1 (356)  
CONTRACT ID NO.: C00108424DB92**

**JANUARY 17, 2017**

PREPARED FOR:



SUBMITTED BY:







January 17, 2017

Mr. Bryan W. Stevenson, P.E.  
Alternate Project Delivery Office  
Virginia Department of Transportation  
1401 East Broad Street  
Richmond, Virginia 23219

**RE: I-66 Eastbound Widening Inside the Beltway**  
State Project No.: 0066-96A-417, P101, R201, C501  
Federal Project No.: NHPP-066-1(356)  
Contract ID Number: C00108424DB92

Dear Mr. Stevenson:

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 is nationally ranked as the #1 Highway Contractor by *Engineering News-Record (ENR)* and specializes in high quality road and bridge construction. LANE has a long and successful history of project completion in Virginia having completed nearly 150 projects worth over \$2.4B in the Commonwealth alone.

As a leader in the Design-Build method (nationally ranked as the 55<sup>th</sup> Top Design-Build Firm by *ENR*) LANE has constructed more than 70 Design-Build projects worth more than \$3B during the last decade. LANE's teaming and leadership experience enables us to deliver the innovative and technically sound results that VDOT and Virginia residents expect and deserve.

LANE is the Offeror and will be the overall authority on the project as well as the Lead Contractor. We have teamed with Rinker Design Associates, PC (RDA) as the Lead Designer. LANE and RDA have a history of teaming together and are currently delivering VDOT the I-66/Route 15 Interchange Reconstruction in Prince William County and the Route 29 Solutions D-B in Albemarle County. Together, we provide VDOT with a reputable team that has completed projects of this size and scope on time and on budget as evidenced in our collective project experiences.

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

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

Ali Alkouraishi, Pursuit Manager  
14500 Avion Parkway, Suite 200  
Chantilly, VA 20151  
Tel: (703) 222-5670 Fax: (703) 222-5960  
Email: AAlkouraishi@laneconstruct.com

**The Lane Construction Corporation**

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An Equal Opportunity Employer M/F/D/V



**3.2.3 Offeror's Principal Officer Information:** Mr. Richard A. McDonough is a Principal Officer of The Lane Construction Corporation and the legal entity with whom a Design-Build contract with VDOT will be executed.

Richard A. McDonough, Senior District Manager

14500 Avion Parkway, Suite 200

Chantilly, VA 20151

Tel: (703) 222-5670 Fax: (703) 222-5960

Email: RAMcdonough@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 LANE's 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 LANE's VDOT Prequalification (L002/Active) is included in the Appendix and verifies that LANE is prequalified for this project.

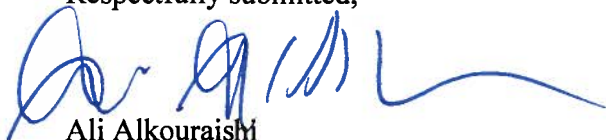
**3.2.9 Letter of Surety:** A surety letter from the bonding companies is included in the Appendix, confirming their willingness to provide any and all bonds for this project.

**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 **15%** goal for the design and construction of this project utilizing Virginia certified DBE companies.

The LANE 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,



Ali Alkouraihi


Pursuit Manager


The Lane Construction Corporation

### 3.3 OFFEROR'S TEAM STRUCTURE

### 3.3 | OFFEROR'S TEAM STRUCTURE

**LANE** The Lane Construction Corporation (LANE) will serve as the Lead Contractor of the D-B Team for the I-66 Eastbound Widening Inside the Beltway (I-66 Widening) project and will be responsible for managing the project, supervising construction, and self-performing the major work elements. LANE was named one of the 2016 Top Contractors by *ENR Mid-Atlantic* and is nationally ranked 55th in Top Design-Build Firms by *ENR*. Our proven heavy civil experience in bridge and roadway construction and more than 70 D-B projects ranging in scope and value from \$13M to \$2.3B demonstrates LANE's ability to tackle the region's most challenging infrastructure projects.

 **Rinker Design Associates, PC (RDA)**, as the Lead Designer, will provide overall project management for all design activities. RDA is a Virginia-based firm with over 115 employees with offices in Manassas, Fredericksburg, and Richmond. They are an award-winning, Virginia-certified, small business (DSBSD Certification #652784) and have served as the lead designer on thirteen (13) D-B projects in the past ten (10) years and have supported another five (5) over the same timeframe.

 **HDR Engineering, Inc. (HDR)**, as the subconsultant to RDA, will be responsible for all geotechnical matters, environmental services, and ITS coordination, and will provide structural support. Known for providing value-added solutions and innovations in their approach to projects for almost 100 years, HDR is one of the largest design firms in the United States, ranked by *ENR* #9 in the overall Top 500 Design Firms.

LANE and RDA have a successful history of teaming together on important D-B projects in the Commonwealth. Two recent projects include LANE's I-66/Route 15 Interchange Reconstruction D-B project in Prince William County where RDA is the Lead Designer; and, the Route 29 Solutions D-B project where RDA led the Route 29 Widening portion of the project and provided right-of-way and utility coordination services for all three segments of the project. Both projects' designs are complete and construction activities near completion. LANE and HDR also have a long history of teaming together including D-B interstate widening projects such as the I-495 Express Lanes and I-95 Express Lanes VDOT projects. On the VDOT I-95 Express Lanes project, the FLUOR/LANE/HDR Team was able to complete 29 miles of dual, reversible, express lanes in 29 months to finish one month ahead of schedule. RDA was a subconsultant to HDR for this high-profile project. **We are staffing the I-66 Widening project with the same leadership team and core design staff from our I-66/Route 15 Interchange Reconstruction project. We believe this team structure will provide VDOT the highest level of confidence that the LANE Team is right for this project.**

#### Additional Design and Construction Subconsultants

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

- CES Consulting, LLC (QAM)
- Dulles Geotechnical & Material Testing Services, Inc. (QA Lab)
- DMY Engineering Consultants, Inc. (QC Lab)

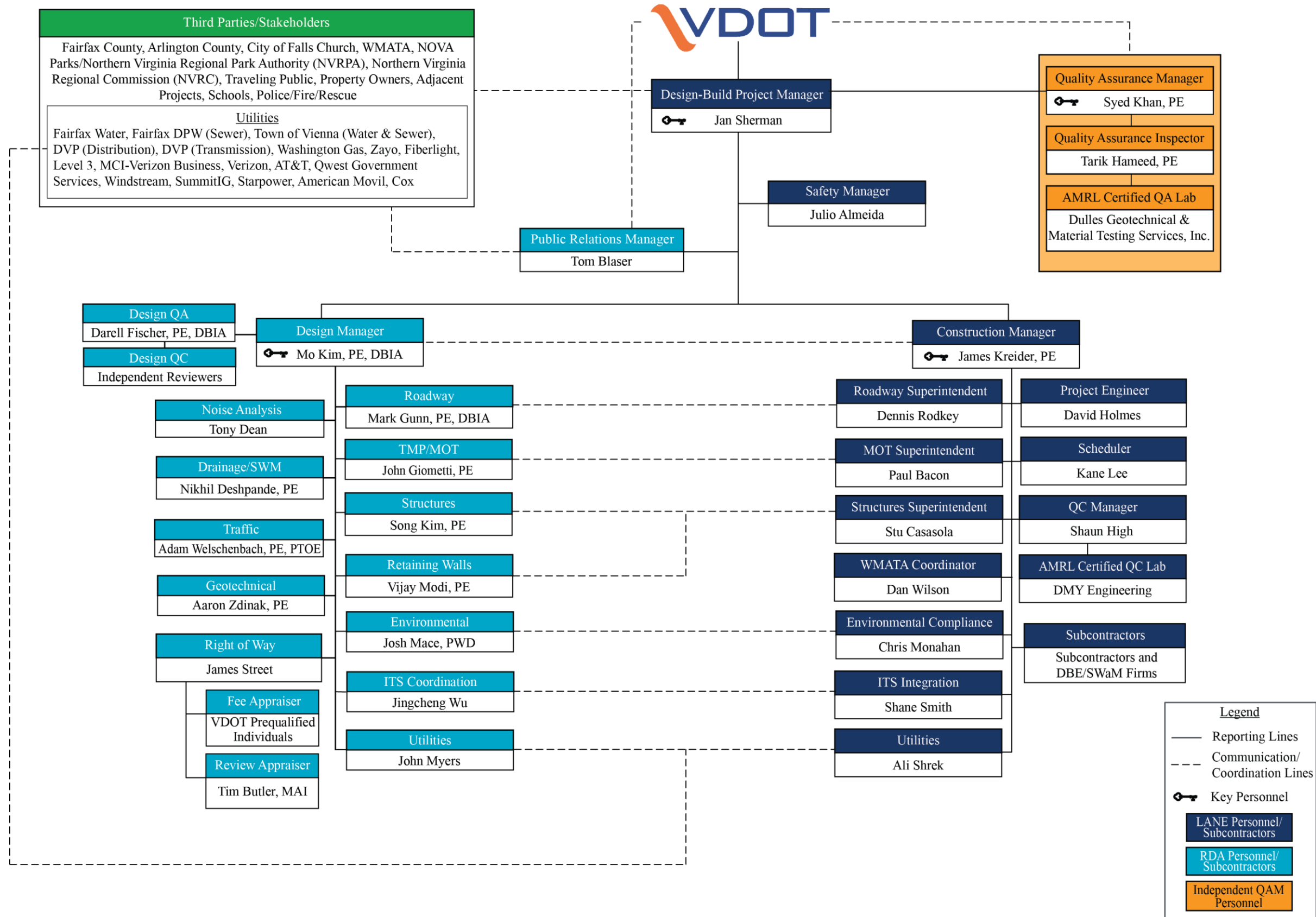
#### 3.3.1 Qualifications of Key Personnel

All proposed Key Personnel have noteworthy experience on transportation projects similar to the roles they will serve on the I-66 Widening project. Information regarding their experience can be found in Attachment 3.3.1 in the Appendix.

Name	Position	Company
Jan Sherman	Design Build Project Manager	LANE
Syed Khan, PE, CCM, DBIA	Quality Assurance Manager	CES
Mo Kim, PE, DBIA	Design Manager	RDA
James Kreider, PE	Construction Manager	LANE

3.3.2 Organizational Chart

The LANE Team organization has a straight-forward chain of command, with individual tasks, responsibilities, and functional relationships clearly identified. The following Organizational Chart depicts VDOT, third party stakeholders, key personnel, and their respective relationships and functions.



## Reporting Relationships of Key Personnel

**Design Build Project Manager (DBPM), Mr. Jan Sherman (LANE)** will report to VDOT and serves as the Project's central point of contact. He will facilitate communication among VDOT, team partners and adjacent projects; monitor design efforts to proactively eliminate potential constructability issues prior to breaking ground, and delegate resources to deliver the project on time. It will be his responsibility to work with the Team to ensure that the design complies with the owner's specifications. Mr. Sherman's management from design through construction will include weekly design and construction meetings to coordinate how the Team will construct the project. Additionally, he is responsible for construction quality management, contract administration, and coordination of public outreach and public meetings.

**✓ Added Value:** Mr. Sherman is currently the DBPM on the I-66/Route 15 Interchange Reconstruction (with RDA as Lead Designer). Additionally, Mr. Sherman was Project Manager on the \$1.5B I-495 Express Lanes project, specifically the I-66/I-495 interchange segment, which included major interstate roadway widening on one of the most congested highways in the country. Mr. Sherman's ability to guide and improvise the construction activities has allowed for an estimated early completion date for the I-66/Route 15 Interchange Reconstruction D-B project.

**Quality Assurance Manager (QAM), Mr. Syed Khan, PE, CCM, DBIA (CES)** will report directly to the DBPM on all quality issues. 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 will be resolved by Mr. Khan and the DBPM. Mr. Khan will keep VDOT informed on the status of quality of construction and issues/solutions through weekly reports and progress meetings. As QAM, Mr. Khan holds the authority to suspend work if quality issues warrant. **Quality Assurance Inspector, Mr. Hameed, PE (CES)**, will report directly to the QAM, and will be assigned to the project on a full-time basis for the duration of the project. **Dulles Geotechnical & Material Testing Services, Inc.** will report to Mr. Khan and will perform QA testing.

**✓ Added Value:** Mr. Khan has 31 years of heavy civil construction experience that encompasses all aspects of a project. From program and project management, QA/QC, and design and construction management to implementation of strategic planning and administration in construction project management, quality control, and project controls, his comprehensive experience is invaluable.

**Design Manager, Mr. Mo Kim, PE, DBIA (RDA)** will report directly to the DBPM. Mr. Kim 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 specifications; all design disciplines report directly to Mr. Kim. He will provide VDOT with design plans for review and approval to confirm that the design work is constructible and complies with the requirements of the Contract Documents. Mr. Kim is also responsible for establishing oversight of the QA/QC program for each design discipline of the project. He will be assisted by Mr. Darell Fischer, PE, DBIA, who will provide an independent design QA audit. The design QC will also be coordinated by Mr. Fischer and will be performed by qualified independent staff for each discipline and team member.

**✓ Added Value:** Mr. Kim served in the same role (Design Manager) on the DDI design for the I-66/Route 15 Interchange Reconstruction D-B project (included in Work Histories) with LANE and DBPM, Mr. Sherman. Mr. Kim is currently completing his assignments with our proposed DBPM, in which both have been in identical roles for the duration of the project. Mr. Kim has worked on 18 D-B projects in the Commonwealth. His 22 years of Northern Virginia experience will serve as a conduit for coordination and education of the stakeholders throughout the life of the project.

**Construction Manager, Mr. James Kreider, PE (LANE)** will report directly to the DBPM. His daily duties include: safety, coordination of all project personnel including subcontractors, QC, and QA. He holds ultimate responsibility for managing the project's schedule with his Project Engineer and will coordinate daily with the adjacent projects. He will hold daily meetings with the QA Lead Inspector to discuss all ongoing construction activities. He will also review all QC reports and lab results. Any item that is not conforming to the specifications



will be addressed immediately with corrective actions mandated that same day. Mr. Kreider is currently working on the VDOT I-66/Route 15 Interchange Reconstruction project and will be available prior to the start of the I-66 Widening construction. Mr. Kreider will hold a Virginia Department of Environmental Quality (DEQ) Responsible Land Disturber (RLD) Certification and a VDOT Erosion and Sediment Control Contractor Certification (ESCCC) prior to the commencement of construction.

**✓ Added Value:** Mr. Kreider brings over 10 years of construction experience. He is currently working with our proposed DBPM, Mr. Sherman; DM, Mr. Kim; and additional RDA staff on the VDOT I-66/Route 15 Interchange Reconstruction project (included in Work Histories). Mr. Kreider was also an Assistant Construction Manager on the I-95 Express Lanes project (included in Work Histories).

**Other Functional Relationships**

The LANE Team also includes the following recognized specialists whom we deem critical to this Project. Their relevant qualifications are summarized below.

Name/Position	Yrs Exp.	D-B	Interstate Widening	I-66 Corridor	Complex MOT	Worked with Other Team Members
<i>Other pertinent design disciplines that will report directly to Mr. Sherman (DBPM) include:</i>						
<b>Julio Almeida/Safety Manager</b>	16	●	●	●	●	●
<b>Tom Blaser/Public Relations Manager</b>	35	●	●	●	●	●
<i>Other pertinent design disciplines that will report directly to Mr. Kim, PE (DM) include:</i>						
<b>Darell Fischer, PE, DBIA/Design QA</b>	30	●	●	●	●	●
<b>Mark Gunn, PE, DBIA/Roadway</b>	19	●	●	●	●	●
<b>Nikhil Deshpande, PE/Drainage</b>	14	●	●	●	●	●
<b>Song Kim, PE/Structures</b>	23	●	●	●	●	●
<b>Vijay Modi, PE/Retaining Walls</b>	33	●	●		●	●
<b>John Giometti, PE/MOT</b>	27	●	●	●	●	●
<b>Adam Welschenbach, PE, PTOE/Traffic</b>	15	●	●	●	●	●
<b>John Myers/Utilities</b>	18	●	●	●	●	●
<b>Aaron Zdinak, PE/Geotechnical</b>	24	●	●		●	●
<b>Tony Dean/Noise Analysis</b>	22	●	●	●	●	●
<b>James Street/Right-of-Way</b>	41	●	●		●	●
<b>Josh Mace, PWD/Environmental</b>	13	●	●		●	●
<b>Jingcheng Wu/ITS Coordination</b>	16	●	●		●	●
<i>Other pertinent construction disciplines that will report directly to Mr. Kreider, PE (CM) include:</i>						
<b>Paul Bacon/MOT Superintendent</b>	9	●	●	●	●	
<b>Ali Shrek/Utility Manager</b>	2	●	●	●	●	●
<b>Stu Casasola/Structures Superintendent</b>	15	●	●	●	●	●
<b>Dan Wilson/Wmata Coordinator</b>	34	●	●	●	●	●
<b>Dennis Rodkey/Roadway Superintendent</b>	42	●	●	●	●	●
<b>Chris Monahan/Environmental</b>	15	●	●	●	●	●

## 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.

The DBPM will be involved in all project development and construction processes to ensure overall quality management, adherence to the contract, and to allocate appropriate resources to meet the project schedule. Furthermore, the DBPM will guide the Team in important Public Outreach efforts that will be critical in mitigating citizen concerns on a project in these localities and with such high traffic volumes.

The LANE Team’s extensive D-B experience has shown that regularly scheduled discipline coordination meetings throughout design and construction are critical to ensuring a successful project. Led by the DBPM, these focused meetings will 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. As an added benefit, VDOT will be invited to attend these open forums of discussion among team members (design and construction) to facilitate resolution of issues, clearly define project criteria, address corridor-wide safety and constructability issues, and provide consistency in design before impacting schedule or budget.

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.

**Construction Support During Design.** *Construction staff are engaged to ensure designs are constructible and tailored to support the most efficient execution strategy.*

Construction Support During Design	Benefit
Critical input in development of work packaging and D-B strategy	Incorporates construction expertise to develop most efficient construction sequence and schedule logic
Advising design team on specific construction elements required for the project	Enables tailoring of design / construction documentation to construction delivery method
Providing input on construction means and methods to design packages	Ensures practical designs that support planned construction approaches in a safe and economical manner
Constructability, operability and pricing reviews of design documents	Ensures design documents are implementable and will achieve intended purpose

**Design Support During Construction.** *Engineering staff continue to support construction to ensure design intent is achieved.*

Design Support During Construction	Benefit
Preparation of subcontractor statements of work	Ensures translation of design requirements into subcontractor statements of work
Assignment of design engineer(s) on-site, as needed	Provides assistance in interpretation of design requirements and responding to field changes
Providing support due to field changes requiring design changes	Ensures consistency of design changes with intent of original design
Providing and verifying final as-built drawings	Provides correlation between original design, design changes, and as-built construction

## 3.4 EXPERIENCE OF OFFEROR'S TEAM



### 3.4 | EXPERIENCE OF OFFEROR’S TEAM

LANE and RDA have individually performed more than \$2B (combined value) in D-B projects for VDOT over the past 8 years. As a Team, we have performed in excess of \$900M. This experience, together and individually, specific to D-B projects, is critical to the success that we will deliver to the Department on this project.

LANE, RDA, and HDR, as a team, worked on the 95 Express Lanes project to design and implement a complex Maintenance of Traffic (MOT) plan with similarities to the challenges associated with MOT on this project. To further enhance this relationship, HDR was the lead engineer on a large section of the Fluor/Lane 95 Express Lanes project. RDA was a subconsultant to HDR in a reverse role to their relationship on this project. Furthermore, HDR and RDA provided the preliminary design for the 395 Express Lanes currently under procurement. Recognizing the design (and ultimate construction) of adjacent pedestrian facilities is an integrated element of this project, it is relevant to note that RDA has over 100 pedestrian design projects in the Northern Virginia region alone over the past 10 years. With each of these projects, RDA focused on quality designs to ensure safe and functional pedestrian facilities. Furthermore, RDA has worked directly with the Northern Virginia Regional Park Authority (NVRPA), Fairfax County, and Arlington County who own, manage, or are integrally vested in the trails on this project (i.e., W&OD Trail and Custis Trail).

Our public relations and outreach will be led by Mr. Tom Blaser, former Director of Transportation for Prince William County. Mr. Blaser possesses 35 years of experience delivering projects in Northern Virginia and thoroughly understands the context sensitivity of the region. Working in conjunction with the very experienced members of our Team, we will mitigate and resolve any public misconception through proper dissemination of information and coordination.

The table below reflects the Work Histories that our Team is submitting and demonstrates the relevant features that each project shares with the I-66 Widening project.

 	Design-Build	Proposed Key Personnel Involved	Extensive MOT	Complex Interchange	Coordination with VDOT	Interstate Project	Heavily Traveled Corridor	Stakeholder/Public Involvement	Roadway Widening	ROW Acquisition Services	Complex Utilities	Bridges/Structures
I-95 Express Lanes*	●	●	●	●	●	●	●	●	●	●	●	●
I-495 Express Lanes	●	●	●	●	●	●	●	●	●	●	●	●
Springfield Interchange	●		●	●	●	●	●	●	●	●	●	●
I-66/Route 15 Interchange Reconstruction	●	●	●	●	●	●	●	●	●	●	●	●
Route 7	●	●	●	●	●		●	●	●	●	●	●

\*Asterisk denotes a project LANE and RDA have included in both Contractor and Lead Designer work histories.

#### 3.4.1 Work History Forms

Work History Forms (Attachments 3.4.1(a) and (b)) as required for LANE (Lead Contractor) and RDA (Lead Designer) are included in the Appendix.





## 3.5 | PROJECT RISKS

The LANE Team has carefully considered the key elements of work for the I-66 Widening project to determine the three most relevant and critical Project Risks for our Team to mitigate for the success of this Project. In making our assessment, we considered numerous potential risks to the project including: geotechnical conditions, utility relocations, ITS coordination, TMP/MOT, retaining walls, Noise Barrier Walls, agency/stakeholder coordination, public relations, permitting, stormwater management, and ROW acquisitions. Each of these risk items will have a major impact on the project if not properly assessed and mitigated. Additionally, we evaluated the constructability of the bridges in tight/constrained relationship to the WMATA rail lines (and structures). Although the means and methods to widen these structures in close proximity to WMATA may be inefficient, our Team felt that there was no real Project Risk. Having developed a comparison matrix of key elements associated with each of these in addition to experiencing similar risks on other projects, we have concluded **that Maintenance of Traffic, Noise Barrier Walls, and ITS/Tolling** are the three most critical risks to the success of this project. The LANE Team has encountered similar risks working together on numerous Design-Build projects (I-95 Express Lanes, I-66/Route 15 Interchange Reconstruction, and Route 29 Solutions) and successfully mitigated them.

### Risk No. 1 – Maintenance of Traffic (MOT) During Construction

**Risk Identification:** Impacts to the traveling public during construction are always a concern, and become magnified when it involves a major, high volume corridor such as I-66 in Northern Virginia. The I-66 corridor is the primary route from the west between the I-495 Beltway and Washington, DC and is one of the most congested corridors in the nation. The eastbound lanes of I-66 alone carry over 63,000 vehicles per day demonstrating that this stretch of highway is vital to the overall transportation network in the region for commuters, commerce, and tourism. Construction traffic entering and exiting the work zone from the left lanes of I-66 will impede traffic and cause unstable flow during high volume periods. This is further hampered by the constraint of the WMATA Metro in the median the full length of the project. MOT is the gold standard by which the public judges the success of a project. If MOT fails to function, congestion likely becomes gridlock, secondary and side streets become snarled, and a great public outcry of dissatisfaction erupts.

**Why MOT is Critical and the Impacts to the Project:** Failure to design and implement an effective MOT plan could significantly magnify traffic congestion and impact the project costs and schedule. Motorists may select alternate routes thus causing unwanted “cut through” traffic in residential areas and/or contribute to additional congestion on the regional roadway network. Delays on I-66 caused by a failed MOT operation could force delays and disruptions to the ongoing work operations which would impact the construction schedule. Failed MOT also impacts toll revenue operations and collections due to the fact that revenue customers may make alternate route choices. Additionally, the safety of motorists and our workforce can be compromised if the MOT for the project is not well communicated, improperly implemented or difficult to navigate.

Currently, I-66 eastbound is a typical two lane section with substandard shoulders, on and off ramps and an auxiliary lane at Route 7; plus, a short three lane section between the I-66 spur to the exit for Route 29 with is three 11.5’ wide lanes with a 6’ (plus) wide outside shoulder and 3.5’ (plus) wide inside shoulder. Throughout the project, limited outside shoulder width impacts our ability to maintain an effective space for disabled vehicles and incident management due to shifting the travel lanes to the outside to create the median work area.

By providing space for safe and efficient construction of the Project, increased congestion, distractions to motorists, and new conflict points in the corridor arise and may contribute to incidents during construction. Reduced traffic space will make it more difficult for emergency responders to access and clear incidents which can result in long queues that may spill onto I-495 and cause secondary incidents. Construction traffic entering/exiting the work area will likely impact traffic flow and safety. Impacts to the Project area during construction may include:

- **Increased Congestion and Incidents** – Narrowing lanes and shoulders, shifting lane alignments, and changing traffic patterns reduces capacity and increases distractions to motorists, which causes congestion and increases the likelihood for incidents.
- **Increased Incident Response Time** – Narrowing the outside shoulder will impact incident response and limit space for removing disabled vehicles from the travel lanes.
- **Travel Delays at Off-Peak Periods** – Improving the existing shoulders requires night work using short-term lane closures to avoid commuter delays.
- **Poor Public Perception** – Travel delays and increased incident frequencies will cause poor public perception, especially for commuters along the I-66 corridor.
- **Left Lane Access Points** – Providing construction access for median work areas from the passing (left) lane is contrary to driver expectations and can lead to an increase in incidents. This issue is exacerbated on this project given that the existing lanes are operating beyond capacity.
- **Roadside Hazards** – Shifting traffic to the outside shoulder reduces, or in many cases eliminates, the recovery area for disabled vehicles as there are significant portions of the project currently confined by retaining or sound walls.

**Risk Mitigation Strategy:** The LANE Team’s mitigation strategies will begin with the development of precise and functional MOT plans and an implementation plan that will focus on a clearly identified travel way through work zones. An effective MOT Plan that minimizes disruptions to traffic flow will be imperative to ensure positive public perception of this important project. Communication of the active construction operations and travel expectations through work zones will be a primary focus. Frequent notification to the motorists will be made to educate and inform with respect to planned traffic patterns. The safety of the traveling public, as well as that of the construction workers, VDOT representatives and QA/QC staff will be the highest priority. Incident management and situational responses will be accommodated through the design and implementation of our MOT Plan.

The LANE Team’s approach is to safely maintain traffic through work zones, minimizing disruptions to vehicular traffic and pedestrian patterns while completing the construction as expeditiously as possible. The MOT phases will be developed to maintain mobility, minimize lane closures and as much as possible keep major construction activities separated from the public. As the project progresses, ingress and egress to newly widened or added lanes will be made available so that traffic operations are further improved to aid in mitigating construction related impacts. Our Team brings extensive experience with MOT under these high traffic volume circumstances, all necessary lane shifts, closures or alterations to traffic patterns, signage or ITS systems will be in accordance the VDOT Work Area Protection Manual, the MUTCD and all other applicable policies and procedures on pertaining to I-66 operations and the included roadways and transportation facilities that will have the potential to be impacted by this project. By insuring that all access, restrictions, traffic shifts, etc. are communicated to the stakeholders, we will have mitigated MOT issues early on. Additionally, our Team’s Transportation Management Plan, in accordance with VDOT IIM’s (LD-241.5/TED-351), will outline the

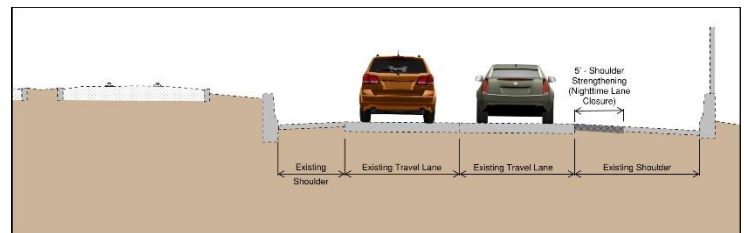


Figure 1 - MOT Phase I (Shoulder Strengthening)

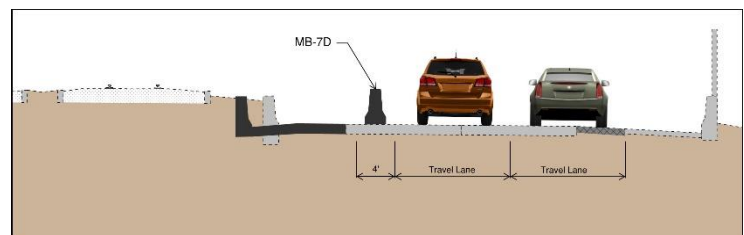


Figure 2 - MOT Phase II (Inside Widening)

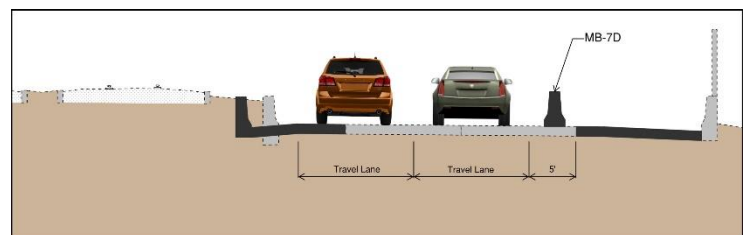


Figure 3 - MOT Phase III (Outside Reconstruction)

requirements for Type C projects. The Plan will include a detailed Temporary Traffic Control Plan (including operational level work zone traffic impact simulation/analysis), a robust Public Communications Plan, and a well-coordinated Transportation Operations Plan. To further assure VDOT that all mitigation efforts are investigated, evaluated and incorporated into the project, our Team will utilize LANE's extensive experience on similar projects such as the 95 Express Lanes, 495 Express Lanes, I-66 HOV Lanes and the I-95 Shoulder Improvements that have provided valuable lessons learned in the effective mitigation of traffic related events.

To further aid in risk mitigation, the MOT Plan will incorporate and utilize communications methods in conjunction with the public involvement/information component of the project. Through this awareness and outreach we will keep the public informed of construction plans, schedules and overall project status to further inform the stakeholders of the situations that will be encountered when traveling in or around the project area. Our strategy to achieve success in the MOT through public outreach strategies will include:

- Dynamic messaging signs to provide advance warning for current work zone activities
- Provide up to date information for construction progress, work zone changes, and incident reports
- Provide a line of communication (hotline) for the public during construction to express concerns
- Commuter lot windshield flyers as needed to alert commuters to upcoming changes
- Communications and public outreach fully coordinated with the VDOT District Communications Team
- Improved Incident Management through and prior planning and close coordination with emergency responders
- Initiate a formal partnering with VDOT, local municipalities, and first responders to review the MOT, construction schedules, incident response plans, and changing traffic patterns before implementation.

**Role of VDOT and Other Agencies:** With a robust Maintenance of Traffic and Incident Management Plan in place and a proposed public outreach coupled with VDOT taking an active role in communicating progress and issues that affect motorists and other stakeholders, we are confident that our Team is a very self-sufficient entity when it comes to this aspect of the project. The LANE Team's past experience, proven delivery methods, and collaborative approach will ensure an effective MOT Plan that minimizes VDOT's involvement beyond that of being informed and aware of daily activities and outcomes. The LANE Team will support VDOT by providing content for press releases, the Project website, and other media for communicating the progress of the Project.

## Risk No. 2 – Noise Barrier Walls

**Risk Identification:** The LANE Team has identified the noise walls, both proposed and existing, to be a significant risk to successful completion of the project. Available documents which include the preliminary noise analysis and the display boards used in the public information meetings, provide the locations of existing and preliminary proposed noise barriers. For this project, it is recognized that all noise barriers will be walls, since earthen berms are impractical in the constrained project site. Proposed walls are categorized as:

- Noise Barrier Feasible and Reasonable
- Noise Barrier Feasible, Not Reasonable
- Noise Barrier Not Feasible
- Existing Noise Barriers to Remain

The preliminary noise analysis report provided the designations based on a preliminary noise study. The only designation that equates to work required by the project, is the first item: noise barrier that is both feasible and reasonable. The conceptual locations for new noise walls are provided on the design public hearing displays.

The LANE Team understands that the preliminary nature of the extent and location of sound mitigating structures creates risk to a transportation project of this magnitude and in this type of highly congested site. The risks involve impacts to both cost and schedule.

### **Why the Noise Barrier Walls are Critical and the Impacts to the Project:**

**Constructability:** Access to the proposed location of certain noise walls will likely be problematic. The walls are to be located adjacent to private property with no easy access from the private property or VDOT side.



The proposed noise walls are shown to be located very close to the existing high tension power lines that run on the south side of the eastbound lanes. Construction of the wall using drill rigs and excavators, and installation of wall panel using cranes becomes an issue due to potential conflicts with the power lines. Placement of cranes and other equipment may extend into existing shoulder and/or travel lanes, thereby requiring lane shifts, pavement narrowing or temporary lane closures, adversely impact existing commuters through an already tight and overcrowded corridor.

There is currently an on-going project to construct the gantry structures for the open road tolling. Noise walls are proposed to be constructed adjacent to the gantries. Final location of the walls may need to be adjusted to provide clearance to the gantry, but very little space is available. The risk is a need for possible additional property acquisition for easements than originally envisioned due to the anticipated method of construction of the walls.

Noise walls are proposed along the south side of the I-66 eastbound lanes. The multi-use trail in this area is in close proximity to the roadway. Construction of the wall may require a temporary shutdown of the trail and/or maintenance of pedestrian and bicycle traffic.

At one particular location, VDOT is proposing to carry the W&OD Trail over US Rte. 29 at the Rte. 29/Fairfax Drive/W&OD trail intersection. As a result, portions of the proposed noise barrier may be in conflict with the proposed overpass. (It should be noted that a detailed review of the barrier constructability/engineering conflicts will be completed during the detailed design phase.)

**Structural capacity of supporting structures:** A significant length of existing sound wall that is to be replaced is supported by existing retaining walls or existing bridge structures. Based on the final noise study that is to be done as part of the D-B project, the new walls may be significantly taller and constructed of heavier material. The structural capacity of the existing walls and bridges may not be adequate to support the new loads, necessitating some amount of structural retrofit, strengthening, or replacement which would increase project costs.

**Schedule:** The quantity and location of the sound walls cannot be finalized until after the final noise study is completed by the D-B Team and then approved by VDOT. The property owners near the project site have input in determining the reasonableness of the sound walls. Unforeseen requirements for permanent easements for sound walls in the approval process have the potential to delay the completion of the project, particularly if the sound walls affect construction such as grading, drainage and storm water management.

Additionally, there is schedule risk as it relates to the public involvement required for incorporation of noise barrier walls. The wall locations and related infrastructure (grading, drainage, utility relocations, etc.) cannot be finalized until the public review process is complete and final noise wall locations and configurations finalized. This has the potential to delay related elements of the project design and ultimately construction, while waiting for finalization of the noise wall design.

**Cost:** Noise barrier walls are expected to be a major risk item to the project cost due to the large quantity and potential for quantity growth based on results of the final noise study. The total cost of the sound walls cannot be accurately determined until after the final noise study is approved. Unknown property easements have the potential to add cost to the project.



*I-95/I-395 (THN Ramp)  
Noise/Retaining Wall Combination  
Walls*



*I-95/I-395 (THN Ramp) – Lightweight  
Noise Wall Barrier on Bridge*

**Risk Mitigation Strategy:** Our Team will develop a project schedule to mitigate for the possible schedule impacts noted above related to risks associated with noise walls on this project. The LANE Team has designed and constructed many noise walls for VDOT around the state and in the NOVA District. Therefore, we are very familiar with the requirements for noise wall analysis, design, public involvement and construction leading to a seamless review and installation process. LANE recently installed the noise walls for the I-66 inside the beltway corridor along the westbound lanes, so we are very familiar with installation in this busy corridor and will apply lessons learned from that project to this project, mitigating schedule risk even further.

We will schedule the field work for the final noise study as soon as possible after notice to proceed, along with management and execution of the final noise study at an accelerated schedule.

The LANE Team will perform an assessment of the existing sound walls that are to remain in place as shown in the November 2016 Preliminary Noise Study drawings. If any of these walls appear damaged or otherwise deficient, they will be brought to VDOT's attention during the scope validation period and planned for replacement. This approach to early identification of noise wall issues will limit schedule slip if the issue was determined at a later date. Additionally, since we will start the noise analysis early, we will be able to well coordinate other design elements with the wall layouts, and not modify already reviewed and agreed upon design elements at a late date.

A strong public outreach effort will engage the property owners early on. We will use this strong public outreach effort to gain needed consensus on wall locations and aesthetics to move the design forward and on schedule.

We will review potential trail impacts during construction early in the design build contract to identify possible temporary trail re-routes in lieu of closures in a tight corridor. Measures could include temporary pavement, possible permanent trail offsets where space allows, or short reroutes on existing street networks, so as to allow a continuous trail option for the commuters and recreational users of the trails.

**Role of VDOT and Other Agencies:** Our Team's approach is organized to minimize the need for VDOT's involvement in the noise wall process. We have identified the following items requiring VDOT input or approval:

- Final noise study will be done by D-B Team and submitted to VDOT for approval.
- Assistance with stakeholder approval of sound walls. Assistance with polling of property owners.
- Help facilitate review of design exceptions/wavers for common sense approaches to problems.
- Provide as-built drawings for new toll gantries
- Provide as-built drawings for existing retaining walls supporting noise walls. Structuring the bid item for sound walls to include a total square foot quantity of sound walls for the project; D-B Team would determine the unit cost. Any additional quantity of wall would be paid at the unit price by VDOT. If quantity of sound wall is less than assumed pre-bid, D-B Team will provide a credit back to the owner.

### Risk No. 3 –ITS/Tolling

**Risk Identification:** The LANE Team has identified the tolling operations, maintained and uninterrupted through the entire duration of construction, to be a significant risk to successful completion of the project. Available documents which include the preliminary design plans and the display boards used in the public information meetings provide the locations of four toll gantries currently being constructed within the project corridor.

The LANE Team understands that the tolling system equipment and infrastructure, which is being installed by others currently, includes many components, such as toll gantries with associated tolling equipment, special pavement in the tolling area under the gantry, NEMA enclosures, concrete pads, directional bores, underground duct banks, wireways, pull boxes, conduits, tolling equipment support cabinets/buildings, maintenance and enforcement pull-off areas, generators, fuel storage tanks, automatic transfer switches, uninterruptable power supplies, maintenance by-pass switches, fiber optic communications, utilities, mechanical, plumbing, electrical, and Intelligent Transportation Systems (ITS). Maintaining every component through uninterrupted operations while coordinating with all necessary parties during construction creates risk to a transportation project of this magnitude. The risks involve both cost and schedule.

**Why ITS/Tolling is Critical and the Impacts to the Project:** In evaluating the impact that ITS/Tolling can have on this project, we identified several specific areas that have schedule and cost implications (*Roles and Responsibilities, Toll Gantry and Tolling Equipment, Communication, Electrical Power, and Intelligent Transportation Systems*).

**Roles and Responsibilities:** A third party will most likely be responsible for maintaining the tolling system. However, regardless of who will maintain the ITS, malfunctions or disruptions of these systems will have a ripple effect on on-going construction and may delay critical activities.

**Toll Gantry and Tolling Equipment:** For the optimum performance of the tolling equipment, toll gantries are often located based on specific criteria.

In addition, there are various types of tolling equipment mounted on toll gantries, such as toll tag reader antennas, enforcement cameras and vehicle detection and classification devices. Each type of device is installed at specific horizontal positions and with specific vertical clearance according to the roadway lane and shoulder configuration. If any device position is moved, extensive testing will be required to maintain the tolling equipment performance.

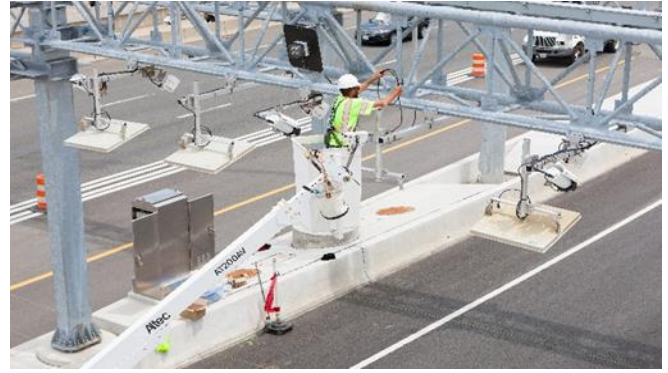


Figure 1 - ITS Equipment Adjustment

Based on the preliminary design plans and the display boards used in the public information meetings, there are two toll gantries currently being constructed along the I-66 eastbound direction within the project limits. The roadway geometry under the two toll gantries will be changed to accommodate the construction of this project. The lane shifts may cause conflicts with the toll gantry locations established by the aforementioned design criteria and to a greater extent, the mounting positions of the tolling equipment. As a result, the performance of the tolling equipment will be impacted and the mounting positions of the tolling equipment will require adjustment.

**Communication:** The tolling system relies on a fiber optic network to communicate between the tolling equipment, support cabinets/buildings, and the back office. The communication between the field and the back office are most commonly interrupted by fiber optic cable cuts and/or loss of Ethernet network switches, which may be planned or unplanned events. These events will cause outside parties to respond to the site and potentially disrupt construction activities along the corridor.

**Electrical Power:** Besides the fiber optic communication network, the other critical component of the tolling infrastructure is the electrical power. The tolling system usually includes Uninterruptible Power Supply (UPS) devices and backup generators. However, the importance of maintaining uninterrupted power for the tolling system is often overlooked and easily impacted during construction due to the proximity of its critical infrastructure.

**Intelligent Transportation Systems (ITS):** The tolling system often includes a Dynamic Message Sign (DMS) subsystem, a Closed Circuit Television (CCTV) subsystem, a Microwave Vehicle Detection Subsystem (MVDS), a fiber optic network subsystem, and a power distribution subsystem. There are existing ITS devices located within the project limits, which may be impacted due to sequencing of construction.

### **Risk Mitigation Strategy:**

**Roles and Responsibilities:** Given that outside parties will be involved, the roles and responsibilities of each stakeholder must be clearly defined and agreed to by all parties during the project design phase, prior to construction. The standard systems engineering process as depicted in the “V” model should be followed. A responsibility matrix by system components will be developed and periodically reviewed/updated. Coordination with all parties involved will begin soon after NTP and be done on a regular basis so that potential conflicts are

identified and resolved during the design phase. Through this approach, coordination can be effectively conducted and potential issues/delays minimized.

***Toll Gantry and Tolling Equipment:*** The LANE Team will coordinate with VDOT and their tolling consultant/contractor at the beginning of the project to understand the requirements and tolerances of the tolling equipment. The LANE Team will work with each of these stakeholders to develop a design that minimizes roadway geometry changes that will impact the tolling equipment's performance.

***Communication:*** At the beginning of this project, the LANE Team will coordinate and work with VDOT to develop a detailed inventory of the existing fiber optic network, a redundant communication path for the tolling system and standard procedures for communication recovery after any communication failures.

***Electrical Power:*** The LANE Team will keep power service runs cleared for unobstructed recognition of the pull boxes and unobstructed access to the service run. Dirt, plants or weeds will be removed from pull box covers. Utility service poles, backup generators and fuel tanks will be clearly marked and protected to prevent damages from construction activities. Furthermore, the LANE Team will perform a detailed inventory of all existing power service panels within the project limits. If any existing service panel will be used to power new devices, the LANE Team will coordinate and work with VDOT to develop the analysis and design to minimize impacts to the tolling operations.

***Intelligent Transportation Systems (ITS):*** The LANE Team will perform a detailed inventory of all existing ITS subsystems within the project limits. Before any existing ITS devices are taken offline, new permanent or temporary ITS devices will be brought online to avoid the interruption of the tolling operations.

***Role of VDOT and Other Agencies:*** The goal of our successful mitigation approach is to minimize VDOT's and TransCore's roles on the project. However, we acknowledge that they are an integral and critical part of how success is achieved. To that end, we anticipate that VDOT will assist or lead the following efforts:

- Champion the tolling coordination meeting held regularly.
- Develop and periodically review and update the tolling system responsibility matrix.
- Support coordination efforts with the tolling equipment manufacture for the tolling system requirements.
- Review our Team's detailed inventory of the existing fiber optic network within the project limits.
- Review our Team's detailed inventory of all existing power service panels within the project limits.





**ATTACHMENT 3.1.2**  
**SOQ CHECKLIST**

**ATTACHMENT 3.1.2**

**Project: 066-96A-417**

**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.

<b>Statement of Qualifications Component</b>	<b>Form (if any)</b>	<b>RFQ Cross reference</b>	<b>Included within 15-page limit?</b>	<b>SOQ Page Reference</b>
<b>Statement of Qualifications Checklist and Contents</b>	Attachment 3.1.2	Section 3.1.2	no	Appendix Attachment 3.1.2
<b>Acknowledgement of RFQ, Revision and/or Addenda</b>	Attachment 2.10 (Form C-78-RFQ)	Section 2.10	no	Appendix Attachment 2.10
<b>Letter of Submittal (on Offeror's letterhead)</b>				
Authorized Representative's signature	NA	Section 3.2.1	yes	Page 2
Offeror's point of contact information	NA	Section 3.2.2	yes	Page 1
Principal officer information	NA	Section 3.2.3	yes	Page 2
Offeror's Corporate Structure	NA	Section 3.2.4	yes	Page 2
Identity of Lead Contractor and Lead Designer	NA	Section 3.2.5	yes	Page 2
Affiliated/subsidiary companies	Attachment 3.2.6	Section 3.2.6	No	Appendix Attachment 3.2.6
Debarment forms	Attachment 3.2.7(a) Attachment 3.2.7(b)	Section 3.2.7	no	Appendix Attachment 3.2.7(a) & 3.2.7(b)

**ATTACHMENT 3.1.2**

**Project: 066-96A-417**

**STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS**

<b>Statement of Qualifications Component</b>	<b>Form (if any)</b>	<b>RFQ Cross reference</b>	<b>Included within 15-page limit?</b>	<b>SOQ Page Reference</b>
Offeror's VDOT prequalification evidence	NA	Section 3.2.8	no	Page 2 & Appendix
Evidence of obtaining bonding	NA	Section 3.2.9	no	Page 2
<b>SCC and DPOR registration documentation (Appendix)</b>	Attachment 3.2.10	Section 3.2.10	no	Appendix
Full size copies of SCC Registration	NA	Section 3.2.10.1	no	Appendix
Full size copies of DPOR Registration (Offices)	NA	Section 3.2.10.2	no	Appendix
Full size copies of DPOR Registration (Key Personnel)	NA	Section 3.2.10.3	no	Appendix
Full size copies of DPOR Registration (Non-APELSCIDLA)	NA	Section 3.2.10.4	no	N/A
<b>DBE statement within Letter of Submittal</b> confirming Offeror is committed to achieving the required DBE goal	NA	Section 3.2.11	yes	Page 2
<b>Offeror's Team Structure</b>				
Identity of and qualifications of Key Personnel	NA	Section 3.3.1	yes	Appendix Attachment 3.3.1
Key Personnel Resume – DB Project Manager	Attachment 3.3.1	Section 3.3.1.1	no	Appendix Attachment 3.3.1
Key Personnel Resume – Quality Assurance Manager	Attachment 3.3.1	Section 3.3.1.2	no	Appendix Attachment 3.3.1

**ATTACHMENT 3.1.2**

**Project: 066-96A-417**

**STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS**

<b>Statement of Qualifications Component</b>	<b>Form (if any)</b>	<b>RFQ Cross reference</b>	<b>Included within 15-page limit?</b>	<b>SOQ Page Reference</b>
Key Personnel Resume – Design Manager	Attachment 3.3.1	Section 3.3.1.3	no	Appendix Attachment 3.3.1
Key Personnel Resume – Construction Manager	Attachment 3.3.1	Section 3.3.1.4	no	Appendix Attachment 3.3.1
Organizational chart	NA	Section 3.3.2	yes	Page 4
Organizational chart narrative	NA	Section 3.3.2	yes	Page 4-7
<b>Experience of Offeror's Team</b>				
Lead Contractor Work History Form	Attachment 3.4.1(a)	Section 3.4	no	Appendix Attachment 3.4.1(a)
Lead Designer Work History Form	Attachment 3.4.1(b)	Section 3.4	no	Appendix Attachment 3.4.1(b)
<b>Project Risk</b>				
Identify and discuss three critical risks for the Project	NA	Section 3.5.1	yes	Pages 9-15



**ATTACHMENT 2.10**  
**FORM C-78-RFQ**

**ATTACHMENT 2.10**

**COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF TRANSPORTATION**

RFQ NO. C00108424DB92  
PROJECT NO.: NHPP-066-1(356)

**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 – November 18, 2016  
(Date)
2. Cover letter of RFQ – December 16, 2016  
(Date)
3. Cover letter of \_\_\_\_\_  
(Date)

  
\_\_\_\_\_  
SIGNATURE

January 17, 2017  
DATE

Ali Alkouraiishi  
PRINTED NAME

Pursuit Manager  
TITLE

**ATTACHMENT 3.2.6  
AFFILIATED AND SUBSIDIARY COMPANIES  
OF THE OFFEROR**

**ATTACHMENT 3.2.6**

**State Project No. 066-96A-417**

**Affiliated and Subsidiary Companies of the Offeror**

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

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

Relationship with Offeror (Affiliate or Subsidiary)	Full Legal Name	Address
ULTIMATE PARENT COMPANY	Salini Impregilo, S.p.A.	Via dei Missaglia, 97 – 20142 Milan, Italy
GRANDPARENT	Salini-Impregilo US Holdings, Inc.	2711 Centerville, Suite 400 Wilmington, DE 19808
PARENT COMPANY	Lane Industries Incorporated	90 Fieldstone Court Cheshire CT 06410
AFFILIATE	Lane Worldwide Infrastructure, Inc.	90 Fieldstone Court Cheshire CT 06410
AFFILIATE	Lane Infrastructure. Inc.	90 Fieldstone Court Cheshire, CT 06410
AFFILIATE	Lane International, B.V.	Prins Bernhardplein 200 1097 JB Amsterdam, the Netherlands
AFFILIATE	Lane Mideast Contracting, LLC	P.O. Box 35243 Abu Dhabi, UAE Makeen Tower Corner of 9th and 10th Streets
AFFILIATE	Lane Mideast, Qatar, LLC	Grand Hamad Street Bin Al Sheikh Bldg. 3rd Floor

SUBSIDIARY	S.A. Healy Company	901 N. Green Valley Parkway, Suite 260 Henderson, NV 89074
JOINT VENTURE (30% PARTNER)	Skanska-Granite-Lane	295 Bendix Road, Suite 400 Virginia Beach, VA 23452
JOINT VENTURE (30% PARTNER)	I4 Leasing, LLC	295 Bendix Road, Suite 400 Virginia Beach, VA 23452
JOINT VENTURE (35% PARTNER)	Fluor-Lane 95, LLC	6700 Las Colinas Blvd. Irving, TX 75039
JOINT VENTURE (20% PARTNER)	AGL Constructors	929 West Adams Street Chicago, IL 60607
JOINT VENTURE (25% PARTNER)	Gemma-Lane Liberty Partners	769 Hebron Avenue Glastonbury, CT 06033
JOINT VENTURE (25% PARTNER)	Gemma-Lane Patriot Partners	769 Hebron Avenue Glastonbury, CT 06033
JOINT VENTURE (51% MANAGING PARTNER)	Lane-Abrams Joint Venture	3001 Meacham Boulevard, Suite 215 Fort Worth, TX 76137
JOINT VENTURE (60% MANAGING PARTNER)	Lane-Corman, A Joint Venture	90 Fieldstone Court Cheshire, CT 06410
JOINT VENTURE (30% PARTNER)	Purple Line Transit Constructors, LLC (PLTC)	6811 Kenilworth Avenue East Riverdale, MD 20737
JOINT VENTURE (45% PARTNER)	Fluor-Lane South Carolina	100 Fluor Daniel Drive Greenville, SC 29607
TRADE NAME	Civil Wall Solutions, A Division of The Lane Construction Corporation	90 Fieldstone Court Cheshire, CT 06410
TRADE NAME	Cold River Materials, A Division of The Lane Construction Corporation	90 Fieldstone Court Cheshire, CT 06410



TRADE NAME	Lane Concrete Frames, A Division of The Lane Construction Corporation	90 Fieldstone Court Cheshire, CT 06410
TRADE NAME	Prestress of the Carolinas, A Division of the Lane Construction Corporation	90 Fieldstone Court Cheshire, CT 06410
TRADE NAME	Senate Asphalt, A Division of The Lane Construction Corporation	90 Fieldstone Court Cheshire, CT 06410
TRADE NAME	Virginia Paving Company, A Division of The Lane Construction Corporation	90 Fieldstone Court Cheshire, CT 06410
TRADE NAME	Virginia Sign and Lighting Company, Division of The Lane Construction Corporation	90 Fieldstone Court Cheshire, CT 06410

**ATTACHMENT 3.2.7(a)**  
**DEBARMENT FORM- PRIMARY COVERED**  
**TRANSACTIONS**

**ATTACHMENT NO. 3.2.7(a)**

**CERTIFICATION REGARDING DEBARMENT  
PRIMARY COVERED TRANSACTIONS**

**Project No.: 066-96A-417**

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 form.

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.

	January 17, 2017	Pursuit Manager
Signature	Date	Title

The Lane Construction Corporation

---

Name of Firm

**ATTACHMENT 3.2.7(b)**  
**DEBARMENT FORM- LOWER TIER COVERED**  
**TRANSACTIONS**

**ATTACHMENT NO. 3.2.7(b)**

**CERTIFICATION REGARDING DEBARMENT  
LOWER TIER COVERED TRANSACTIONS**

**Project No.: 066-96A-417**

- 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 form.

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

12/13/2016

Date

Executive Director of DB Services/General Manager, Principal  
Title

Rinker Design Associates, P.C.

Name of Firm



**ATTACHMENT NO. 3.2.7(b)**

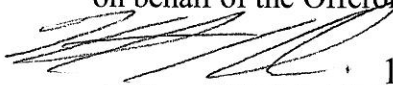
**CERTIFICATION REGARDING DEBARMENT  
LOWER TIER COVERED TRANSACTIONS**

**Project No.: 066-96A-417**

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 form.

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 Kenneth E. Aducci Date 1/6/2017

Senior Vice President  
Title

HDR Engineering, Inc.  
Name of Firm


**ATTACHMENT NO. 3.2.7(b)**

**CERTIFICATION REGARDING DEBARMENT  
LOWER TIER COVERED TRANSACTIONS**

**Project No.: 066-96A-417**

- 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 form.

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.

	1/5/2017	President
Signature	Date	Title

\_\_\_\_\_  
CES Consulting LLC  
Name of Firm

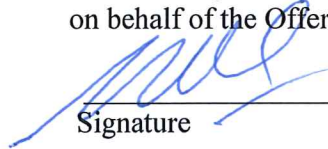
ATTACHMENT NO. 3.2.7(b)

**CERTIFICATION REGARDING DEBARMENT  
LOWER TIER COVERED TRANSACTIONS**

**Project No.: 066-96A-417**

- 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 form.

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.

	<u>1/6/2017</u>	<u>Vice President</u>
Signature	Date	Title

DMY Engineering Consultants Inc.  
Name of Firm



**OFFEROR'S VDOT  
PREQUALIFICATION CERTIFICATE**



COMMONWEALTH OF VIRGINIA



## CERTIFICATE OF QUALIFICATION

### THE LANE CONSTRUCTION CORPORATION

Vendor Number: **L002**

In accordance with the Regulations of the Virginia Department of Transportation, your firm is hereby notified that the following Rating has been assigned to your firm:

**PREQUALIFIED**

Your firm specializes in the noted Classification(s):

**GRADING; MAJOR STRUCTURES; PORTLAND CEMENT CONCRETE PAVING;  
MINOR STRUCTURES; UNDERGROUND UTILITIES; ASPHALT CONCRETE PAVING**

**Issue Date:** June 30, 2016

**This Rating and Classification will Expire:** June 30, 2017

Handwritten signature of Suzanne FR Lucas in black ink.

**Suzanne FR Lucas**, State Prequalification Officer

Handwritten signature of Don E. Silies in blue ink.

**Don E. Silies**, Director of Contracts

It is not permissible to alter this document, use after posted expiration date, or use by persons or firms other than those named on this certificate.



# SURETY LETTER

January 13, 2017

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

RE: **The Lane Construction Corporation**  
**Request for Qualifications - A DESIGN-BUILD PROJECT**  
**I-66 Eastbound Widening Inside the Beltway From: Dulles Connector Road (Route 267)**  
**To: Fairfax Drive (Route 237); Fairfax County and Arlington County, Virginia**  
**State Project No.: 0066-96A-417, P101, R201, C501; Federal Project No.: NHPP-066-1(356)**  
**Contract ID Number: C00108424DB92**  
**Estimated Contract Price: \$90,000,000.00**

To Whom It May Concern:

This letter will serve to confirm that The Lane Construction Corporation is a highly regarded and valued client of the sureties, Liberty Mutual Insurance Company (A.M. Best Financial Strength Rating of A/Excellent and Financial Size Category XV), Berkshire Hathaway Specialty Insurance Company (A.M. Best Financial Strength Rating of A++/Superior and Financial Size Category XV), Fidelity and Deposit Company of Maryland (A.M. Best Financial Strength Rating of A+/Superior and Financial Size Category XV) and National Union Fire Insurance Company of Pittsburgh, PA (A.M. Best Financial Strength Rating of A/Excellent and Financial Size Category XV), 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, 2016.

As the sureties for The Lane Construction Corporation, we advise that The Lane Construction Corporation is capable of obtaining 100% Performance Bond and 100% Labor and Materials Payment Bond in the amount of the anticipated cost of construction, and said bonds will cover the Project and any warranty periods as provided for in the Contract Documents on behalf of the Contractor, in the event that such firm be the successful bidder and enter into a contract for this Project.

Naturally, as is customary within the surety industry, the issuance of any bonds is contingent upon a favorable underwriting review of project specifics including, but not limited to, the contract terms, conditions, documents, bond forms and confirmation of complete project financing by both The Lane Construction Corporation and its co-sureties 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  
Berkshire Hathaway Specialty Insurance Company  
Fidelity and Deposit Company of Maryland  
National Union Fire Insurance Company of Pittsburgh, PA



Theresan E. Rowedder  
Attorney-in-Fact



**THIS POWER OF ATTORNEY IS NOT VALID UNLESS IT IS PRINTED ON RED BACKGROUND.**

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.

Certificate No. 7425107

American Fire and Casualty Company  
The Ohio Casualty Insurance Company

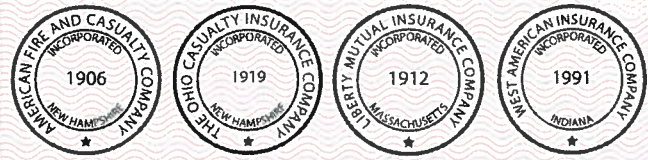
Liberty Mutual Insurance Company  
West American Insurance Company

**POWER OF ATTORNEY**

KNOWN ALL PERSONS BY THESE PRESENTS: That American Fire & Casualty Company and The Ohio Casualty Insurance Company are corporations 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, Brian Driscoll; Bryan Huft; Gregory J. Steele; Jane Gilson; Jean Correia; Jeffrey Hendricks; Kevin A. White; Maria Chaves; Mark P. Herendeen; 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 19th day of July, 2016.



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

By: David M. Carey  
David M. Carey, Assistant Secretary

STATE OF PENNSYLVANIA ss  
COUNTY OF MONTGOMERY

On this 19th day of July, 2016, before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of American Fire and Casualty Company, Liberty Mutual Insurance Company, The Ohio Casualty Insurance 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 Plymouth Meeting, Pennsylvania, on the day and year first above written.



COMMONWEALTH OF PENNSYLVANIA  
Notarial Seal  
Teresa Pastella, Notary Public  
Plymouth Twp., Montgomery County  
My Commission Expires March 28, 2017  
Member, Pennsylvania Association of Notaries

By: Teresa Pastella  
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 American Fire and Casualty Company, 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, Gregory W. Davenport, the undersigned, Assistant Secretary, of American Fire and Casualty Company, 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 13th day of JANUARY, 2017.



By: Gregory W. Davenport  
Gregory W. Davenport, Assistant Secretary

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

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





Power Of Attorney

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

Know all men by these presents, that BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY, a corporation existing under and by virtue of the laws of the State of Nebraska and having an office at 100 Federal Street, 20th Floor, Boston, Massachusetts 02110, NATIONAL INDEMNITY COMPANY, a corporation existing under and by virtue of the laws of the State of Nebraska and having an office at 3024 Harney Street, Omaha, Nebraska 68131, and NATIONAL LIABILITY & FIRE INSURANCE COMPANY, a corporation existing under and by virtue of the laws of the State of Connecticut and having an office at 100 First Stamford Place, Stamford, Connecticut 06902 (hereinafter collectively the "Companies"), pursuant to and by the authority granted as set forth herein, do hereby name, constitute and appoint: Marla Chaves, Jean Correia, Theresan Rowedder, Jane Gilson, Mark P. Herendeen, One Federal Street, 20th Floor of the city of Boston State of Massachusetts, their true and lawful attorney(s)-in-fact to make, execute, seal, acknowledge, and deliver, for and on their behalf as surety and as their act and deed, any and all undertakings, bonds, or other such writings obligatory in the nature thereof, in pursuance of these presents, the execution of which shall be as binding upon the Companies as if it has been duly signed and executed by their regularly elected officers in their own proper persons. This authority for the Attorney-in-Fact shall be limited to the execution of the attached bond(s) or other such writings obligatory in the nature thereof.

In witness whereof, this Power of Attorney has been subscribed by an authorized officer of the Companies, and the corporate seals of the Companies have been affixed hereto this date of November 18, 2014. This Power of Attorney is made and executed pursuant to and by authority of the Bylaws, Resolutions of the Board of Directors, and other Authorizations of BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY, NATIONAL INDEMNITY COMPANY and NATIONAL LIABILITY & FIRE INSURANCE COMPANY, which are in full force and effect, each reading as appears on the back page of this Power of Attorney, respectively.

BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY,

[Signature]

By: David Fields, Executive Vice President



NATIONAL INDEMNITY COMPANY, NATIONAL LIABILITY & FIRE INSURANCE COMPANY,

[Signature]

By: David Fields, Vice President



NOTARY

State of Massachusetts, County of Suffolk, ss:

On this 18th day of November, 2014 before me appeared David Fields, Executive Vice President of BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY and Vice President of NATIONAL INDEMNITY COMPANY and NATIONAL LIABILITY & FIRE INSURANCE COMPANY, who being duly sworn, says that his capacity is as designated above for such Companies; that he knows the corporate seals of the Companies; that the seals affixed to the foregoing instrument are such corporate seals; that they were affixed by order of the board of directors or other governing body of said Companies pursuant to its Bylaws, Resolutions and other Authorizations, and that he signed said instrument in that capacity of said Companies.

[Notary Seal]



[Signature]

Notary Public

I, Brennan Neville, the undersigned, Assistant Secretary of BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY, NATIONAL INDEMNITY COMPANY and NATIONAL LIABILITY & FIRE INSURANCE COMPANY, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies which is in full force and effect and has not been revoked. IN TESTIMONY WHEREOF, I have hereunto affixed the seals of said companies this date of January 13, 2017.



[Signature]

Assistant Secretary

To verify the authenticity of this Power of Attorney please contact us at: BHSI Surety Department, Berkshire Hathaway Specialty Insurance Company, 100 Federal Street, 20th Floor, Boston, MA 02110 | (617) 936-2971 or by email at Courtney.Walker@bhspecialty.com. THIS POWER OF ATTORNEY IS VOID IF ALTERED. To notify us of a claim please contact us on our 24-hour toll free number at (855) 453-9675, via email at claimsnotice@bhspecialty.com, via fax to (617) 507-8259, or via mail.

**BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY (BYLAWS)**

ARTICLE V.

CORPORATE ACTIONS

....

EXECUTION OF DOCUMENTS:

....

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

(1) To appoint Attorneys-in-fact, and to authorize them to execute on behalf of the Company bonds and other undertakings, and

(2) To remove at any time any such Attorney-in-fact and revoke the authority given him.

**NATIONAL INDEMNITY COMPANY (BY-LAWS)**

**Section 4. Officers, Agents, and Employees:**

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

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

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

**NATIONAL LIABILITY & FIRE INSURANCE COMPANY (BY-LAWS)**

**ARTICLE IV**

**Officers**

**Section 1. Officers, Agents and Employees:**

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

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

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

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

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

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

IN WITNESS WHEREOF, the said Vice-President has hereunto subscribed his/her names and affixed the Corporate Seals of the said **ZURICH AMERICAN INSURANCE COMPANY, COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND**, this 26th day of April, A.D. 2016.

**ATTEST:**

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



By: *Eric D. Barnes*

*Gerald F. Haley*

*Secretary*  
*Eric D. Barnes*  
State of Maryland  
County of Baltimore

*Vice President*  
*Gerald F. Haley*

On this 26th day of April, A.D. 2016, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, **GERALD F. HALEY, Vice President, and ERIC D. BARNES, Secretary**, of the Companies, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and acknowledged the execution of same, and being by me duly sworn, depose and saith, that he/she is the said officer of the Company aforesaid, and that the seals affixed to the preceding instrument are the Corporate Seals of said Companies, and that the said Corporate Seals and the signature as such officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporations.

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

*Maria D. Adamski*



Maria D. Adamski, Notary Public  
My Commission Expires: July 8, 2019

**EXTRACT FROM BY-LAWS OF THE COMPANIES**

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

**CERTIFICATE**

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

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

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

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

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

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seals of the said Companies, this 13<sup>TH</sup> day of JANUARY, 2017.



A handwritten signature in black ink, appearing to read "Michael Bond".

Michael Bond, Vice President



POWER OF ATTORNEY

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

Power No. 672

No. 04-B-07407

KNOW ALL MEN BY THESE PRESENTS:

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

--Mark P. Herendeen, Jean Correia, Maria Chaves, Jane Gilson, Theresa E. Rowedder, of Boston, Massachusetts--

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

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

this 9th day of January, 2017



Signature of Michael C. Fay

Michael C. Fay, Vice President

STATE OF NEW YORK )
COUNTY OF NEW YORK ) ss.

On this 9th day of January, 2017 before me came the above named officer of American Home Assurance Company and National Union Fire Insurance Company of Pittsburgh, PA., to me personally known to be the individual and officer described herein, and acknowledged that he executed the foregoing instrument and affixed the seals of said corporations thereto by authority of his office.

Signature of Juliana E. Hallenbeck

JULIANA HALLENBECK
Notary Public - State of New York
No. 01HA8125871
Qualified in Bronx County
My Commission Expires April 18, 2017

CERTIFICATE

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

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

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

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

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

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

this 13th day of JANUARY, 2017



Signature of Martin Bogue

Martin Bogue, Assistant Secretary



**ATTACHMENT 3.2.10**  
**SCC AND DPOR INFORMATION TABLES**

**ATTACHMENT 3.2.10**

**State Project No. 066-96A-417**

**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
<b>The Lane Construction Corporation</b>	F0254476	Foreign Corporation	Active	90 Fieldstone Court Cheshire, CT 06410	Contractor Class A	2701011871	2018-01-31
<b>The Lane Construction Corporation</b>	F0254476	Foreign Corporation	Active	90 Fieldstone Court Cheshire, CT 06410	Business Entity Registration	0407002174	2017-12-31
<b>The Lane Construction Corporation</b>	F0254476	Foreign Corporation	Active	14500 Avion Parkway, Suite 200 Chantilly, VA 20151	Business Entity Branch Office Registration	0411000988	2018-02-28
<b>Rinker Design Associates, P.C. (RDA)</b>	0227062-7	S-Corporation	Active	9385 Discovery Blvd., Suite 200, Manassas, VA 20109	Professional Corporation Registration	0405000502	2017-12-31
					Appraisal Business Registration	4008001684	2017-02-28
				927 Maple Grove Dr., Suite 105, Fredericksburg, VA 22407	Professional Corporation Branch Office Registration	0410000156	2018-02-28
					Appraisal Business Registration	4008001739	2018-04-30
				4301 Dominion Blvd., Suite 100, Glen Allen, VA 23060	Professional Corporation Branch Office Registration	0410000220	2018-02-28
					Appraisal Business Registration	4008001801	2018-04-30

**ATTACHMENT 3.2.10**

**State Project No. 066-96A-417**

**SCC and DPOR Information**

<b>HDR Engineering, Inc.</b>	F0484602	Foreign Corporation	Active	249 Central Park Ave., Suite 201, Virginia Beach, VA 23462	Business Entity Branch Registration Office	0411000028	2018-02-28
				4470 Cox Road, Suite 200, Glen Allen, VA 23060	Business Entity Branch Registration Office	0411000192	2018-02-28
				2600 Park Tower Dr., Suite 100, Vienna, VA 22180	Business Entity Branch Registration Office	0411000770	2018-02-28
				5228 Valleypointe Parkway, Suite 2, Roanoke, VA 24019	Business Entity Branch Registration Office	0411000602	2018-02-28
<b>CES Consulting, LLC</b>	S3416007	Limited Liability Company	Active	23475 Rock Haven Way Suite 255 Dulles, VA 20166	Business Entity Registration	0407005783	2017-12-31
<b>DMY Engineering Consultants Inc.</b>	07688955	S- Corporation	Active	45662 Terminal Drive, Suite 110, Dulles, VA 20166	Business Entity Registration	0407005631	2017-12-31
<b>Dulles Geotechnical and Material Testing Services, Inc.</b>	07582323	Corporation	Active	14119 Sullyfield Circle, Suite H, Chantilly, VA 20151	Business Entity Registration	0407006236	2017-12-31

**ATTACHMENT 3.2.10**

**State Project No. 066-96A-417**

**SCC and DPOR Information**

<b>DPOR INFORMATION FOR INDIVIDUALS (RFQ Sections 3.2.10.3 and 3.2.10.4)</b>						
<b>Business Name</b>	<b>Individual's Name</b>	<b>Office Location Where Professional Services will be Provided (City/State)</b>	<b>Individual's DPOR Address</b>	<b>DPOR Type</b>	<b>DPOR Registration Number</b>	<b>DPOR Expiration Date</b>
<b>CES Consulting, LLC</b>	<b>Syed Khan, P.E.</b>	Dulles, VA	43744 Paramount Pl. Chantilly, VA 20152	Professional Engineer	0402031057	2017-07-31
<b>Rinker Design Associates, P.C. (RDA)</b>	<b>C. Mo Kim, P.E., DBIA</b>	Manassas, VA	12530 Brenmill Lane Manassas, VA 20112	Professional Engineer	0402032943	2017-07-31
<b>The Lane Construction Corporation</b>	<b>James Kreider, P.E.</b>	Chantilly, VA	13135 Bourne Place Bristow, VA 20136	Professional Engineer	0402050080	2018-06-30

**FULL SIZE SCC  
SUPPORTING DOCUMENTATION**



## THE LANE CONSTRUCTION CORPORATION

### SCC eFile

[SCC eFile Home Page](#)  
[Check Name](#)  
[Distinguishability](#)  
[Business Entity Search](#)  
[Certificate Verification](#)  
[FAQs](#)  
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### Business Entities

### UCC or Tax Liens

### Court Services

### Additional Services

### General

SCC ID: F0254476  
Entity Type: Foreign Corporation  
Jurisdiction of Formation: CT  
Date of Formation/Registration: 7/24/1972  
Status: Active  
Shares Authorized: 11700

### Principal Office

90 FIELDSTONE COURT  
CHESHIRE CT06410



## Rinker Design Associates, P.C.

### SCC eFile

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[Distinguishability](#)  
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[Certificate Verification](#)  
[FAQs](#)  
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### Business Entities

### UCC or Tax Liens

### Court Services

### Additional Services

### General

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

### Principal Office

9385 DISCOVERY BOULEVARD  
SUITE 200  
MANASSAS VA20109





#### SCC eFile

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Distinguishability  
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#### Business Entities

#### UCC or Tax Liens

#### Court Services

#### Additional Services

## HDR ENGINEERING, INC.

### General

SCC ID: F0484602  
Entity Type: Foreign Corporation  
Jurisdiction of Formation: NE  
Date of Formation/Registration: 6/25/1985  
Status: Active  
Shares Authorized: 10000

### Principal Office

8404 INDIAN HILLS DR  
OMAHA NE68114



#### SCC eFile

SCC eFile Home Page  
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#### Business Entities

#### UCC or Tax Liens

#### Court Services

#### Additional Services

## CES Consulting, LLC

### General

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

### Principal Office

23475 ROCK HAVEN WAY  
SUITE 255  
DULLES VA20166



**SCC eFile**

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- Distinguishability
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- FAQs
- Contact Us
- Give Us Feedback

**Business Entities**

**UCC or Tax Liens**

**Court Services**

**Additional Services**

**DMY ENGINEERING CONSULTANTS INC.**

**General**

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

**Principal Office**

45662 TERMINAL DRIVE  
SUITE 110  
DULLES VA20166



**SCC eFile**

- SCC eFile Home Page
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- Business Entity Search
- Certificate Verification
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- Give Us Feedback

**Business Entities**

**UCC or Tax Liens**

**Court Services**

**Additional Services**

Bus

**Dulles Geotechnical and Material Testing Services, Inc.**

**General**

SCC ID: 07582323  
Entity Type: Corporation  
Jurisdiction of Formation: VA  
Date of Formation/Registration: 11/26/2012  
Status: Active  
Shares Authorized: 1000

**Principal Office**

14119 SULLYFIELD CIRCLE  
SUITE H  
CHANTILLY VA20151

Ne

**FULL SIZE  
DPOR SUPPORTING DOCUMENTATION  
FOR EACH OFFICE**

## DPOR License Lookup License Number 2701011871

### License Details

<b>Name</b>	THE LANE CONSTRUCTION CORPORATION / SENATE ASPHALT
<b>DBA Name</b>	VA PAVING COMPANY / VA SIGN AND LIGHTING COMPANY
<b>License Number</b>	2701011871
<b>License Description</b>	Contractor
<b>Firm Type</b>	Corporation
<b>Rank <sup>1</sup></b>	Class A
<b>Address</b>	90 FIELDSTONE COURT, CHESHIRE, CT 06410
<b>Specialties<sup>2</sup></b>	Commercial Building (CBC) Highway / Heavy (H/H) Residential Building (RBC)
<b>Initial Certification Date</b>	1972-10-12
<b>Expiration Date</b>	2018-01-31

## DPOR License Lookup License Number 0407002174

### License Details

<b>Name</b>	THE LANE CONSTRUCTION CORPORATION / SENATE ASPHALT
<b>License Number</b>	0407002174
<b>License Description</b>	Business Entity Registration
<b>Firm Type</b>	Corporation
<b>Rank</b>	Business Entity
<b>Address</b>	90 FIELDSTONE COURT, CHESHIRE, CT 06410
<b>Initial Certification Date</b>	1985-09-30
<b>Expiration Date</b>	2017-12-31

## DPOR License Lookup License Number 0411000988

### License Details

<b>Name</b>	THE LANE CONSTRUCTION CORPORATION / SENATE ASPHALT
<b>License Number</b>	0411000988
<b>License Description</b>	Business Entity Branch Office Registration
<b>Business Type</b>	Corporation
<b>Rank</b>	Business Entity Branch Office
<b>Address</b>	14500 AVION PKWY SUITE 200, CHANTILLY, VA 20151
<b>Initial Certification Date</b>	2013-04-18
<b>Expiration Date</b>	2018-02-28

## DPOR License Lookup License Number 0405000502

### License Details

<b>Name</b>	RINKER DESIGN ASSOCIATES PC
<b>License Number</b>	0405000502
<b>License Description</b>	Professional Corporation Registration
<b>Firm Type</b>	PC - Professional Corporation
<b>Rank</b>	Professional Corporation
<b>Address</b>	9385 DISCOVERY BOULEVARD, STE 200, MANASSAS, VA 20109
<b>Initial Certification Date</b>	1986-07-16
<b>Expiration Date</b>	2017-12-31

## DPOR License Lookup License Number 4008001684

### License Details

<b>Name</b>	RINKER DESIGN ASSOCIATES PC
<b>License Number</b>	4008001684
<b>License Description</b>	Appraisal Business Registration
<b>Firm Type</b>	Corporation
<b>Rank</b>	Business Entity
<b>Address</b>	9385 DISCOVERY BOULEVARD SUITE 200, MANASSAS, VA 20109
<b>Initial Certification Date</b>	2011-02-10
<b>Expiration Date</b>	2017-02-28

## DPOR License Lookup License Number 0410000156

### License Details

<b>Name</b>	RINKER DESIGN ASSOCIATES PC
<b>License Number</b>	0410000156
<b>License Description</b>	Professional Corporation Branch Office Registration
<b>Rank</b>	Professional Corporation Branch Office
<b>Address</b>	927 MAPLE GROVE DR STE 105, FREDERICKSBURG, VA 22407
<b>Initial Certification Date</b>	2005-12-27
<b>Expiration Date</b>	2018-02-28

## DPOR License Lookup License Number 4008001739

### License Details

<b>Name</b>	RINKER DESIGN ASSOCIATES PC
<b>License Number</b>	4008001739
<b>License Description</b>	Appraisal Business Registration
<b>Firm Type</b>	Corporation
<b>Rank</b>	Business Entity
<b>Address</b>	927 MAPLE GROVE DR STE 105, FREDERICKSBURG, VA 22407
<b>Initial Certification Date</b>	2012-04-30
<b>Expiration Date</b>	2018-04-30

## DPOR License Lookup License Number 0410000220

### License Details

<b>Name</b>	RINKER DESIGN ASSOCIATES PC
<b>License Number</b>	0410000220
<b>License Description</b>	Professional Corporation Branch Office Registration
<b>Firm Type</b>	PC - Professional Corporation
<b>Rank</b>	Professional Corporation Branch Office
<b>Address</b>	4301 DOMINION BOULEVARD, SUITE 100, GLEN ALLEN, VA 23060
<b>Initial Certification Date</b>	2011-03-17
<b>Expiration Date</b>	2018-02-28

## DPOR License Lookup License Number 4008001801

### License Details

<b>Name</b>	RINKER DESIGN ASSOCIATES P C
<b>License Number</b>	4008001801
<b>License Description</b>	Appraisal Business Registration
<b>Firm Type</b>	Corporation
<b>Rank</b>	Business Entity
<b>Address</b>	4301 DOMINION BOULEVARD SUITE 100, GLEN ALLEN, VA 23060
<b>Initial Certification Date</b>	2014-04-10
<b>Expiration Date</b>	2018-04-30

## DPOR License Lookup License Number 0411000028

### License Details

<b>Name</b>	HDR ENGINEERING INC
<b>License Number</b>	0411000028
<b>License Description</b>	Business Entity Branch Office Registration
<b>Business Type</b>	Corporation
<b>Rank</b>	Business Entity Branch Office
<b>Address</b>	249 CENTRAL PARK AVE STE 201, VIRGINIA BEACH, VA 23462
<b>Initial Certification Date</b>	1992-03-23
<b>Expiration Date</b>	2018-02-28

## DPOR License Lookup License Number 0411000192

### License Details

<b>Name</b>	HDR ENGINEERING INC
<b>License Number</b>	0411000192
<b>License Description</b>	Business Entity Branch Office Registration
<b>Business Type</b>	Corporation
<b>Rank</b>	Business Entity Branch Office
<b>Address</b>	4470 COX ROAD SUITE 200, GLEN ALLEN, VA 23060
<b>Initial Certification Date</b>	1998-08-24
<b>Expiration Date</b>	2018-02-28

## DPOR License Lookup License Number 0411000770

### License Details

<b>Name</b>	HDR ENGINEERING INC
<b>License Number</b>	0411000770
<b>License Description</b>	Business Entity Branch Office Registration
<b>Rank</b>	Business Entity Branch Office
<b>Address</b>	2600 PARK TOWER DRIVE SUITE 100, VIENNA, VA 22180
<b>Initial Certification Date</b>	2010-10-21
<b>Expiration Date</b>	2018-02-28

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## DPOR License Lookup License Number 0411000602

### License Details

<b>Name</b>	HDR ENGINEERING INC
<b>License Number</b>	0411000602
<b>License Description</b>	Business Entity Branch Office Registration
<b>Rank</b>	Business Entity Branch Office
<b>Address</b>	5228 VALLEYPONTE PKWY STE 2, ROANOKE, VA 24019
<b>Initial Certification Date</b>	2009-07-16
<b>Expiration Date</b>	2018-02-28

CES Consulting, LLC

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## DPOR License Lookup License Number 0407005783

### License Details

<b>Name</b>	CES CONSULTING LLC
<b>License Number</b>	0407005783
<b>License Description</b>	Business Entity Registration
<b>Firm Type</b>	LLC - Limited Liability Company
<b>Rank</b>	Business Entity
<b>Address</b>	23475 ROCK HAVEN WAY SUITE 255, DULLES, VA 20166
<b>Initial Certification Date</b>	2010-11-05
<b>Expiration Date</b>	2017-12-31

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DMY Engineering Consultants, Inc.

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## DPOR License Lookup License Number 0407005631

### License Details

<b>Name</b>	DMY ENGINEERING CONSULTANTS INC
<b>License Number</b>	0407005631
<b>License Description</b>	Business Entity Registration
<b>Firm Type</b>	Corporation
<b>Rank</b>	Business Entity
<b>Address</b>	45662 TERMINAL DRIVE SUITE 110, DULLES, VA 20166
<b>Initial Certification Date</b>	2010-03-10
<b>Expiration Date</b>	2017-12-31

Dulles Geotechnical and Material Testing Services, Inc.

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## DPOR License Lookup License Number 0407006236

### License Details

<b>Name</b>	DULLES GEOTECHNICAL AND MATERIAL TESTING SERVICES, INC
<b>License Number</b>	0407006236
<b>License Description</b>	Business Entity Registration
<b>Firm Type</b>	Corporation
<b>Rank</b>	Business Entity
<b>Address</b>	14119 SULLYFIELD CIR STE H, CHANTILLY, VA 20151
<b>Initial Certification Date</b>	2013-02-15
<b>Expiration Date</b>	2017-12-31

**FULL SIZE  
DPOR SUPPORTING DOCUMENTATION  
FOR KEY PERSONNEL**

KEY PERSONNEL DPOR

Syed Khan, P.E.

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## DPOR License Lookup License Number 0402031057

### License Details

<b>Name</b>	KHAN, SYED R
<b>License Number</b>	0402031057
<b>License Description</b>	Professional Engineer License
<b>Rank</b>	Professional Engineer
<b>Address</b>	CHANTILLY, VA 20152
<b>Initial Certification Date</b>	1997-05-01
<b>Expiration Date</b>	2017-07-31

C. Mo Kim, P.E. DBIA

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## DPOR License Lookup License Number 0402032943

### License Details

<b>Name</b>	KIM, CHUN M
<b>License Number</b>	0402032943
<b>License Description</b>	Professional Engineer License
<b>Rank</b>	Professional Engineer
<b>Address</b>	MANASSAS, VA 20112
<b>Initial Certification Date</b>	1999-07-14
<b>Expiration Date</b>	2017-07-31

James Kreider, P.E.

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## DPOR License Lookup License Number 0402050080

### License Details

<b>Name</b>	KREIDER, JAMES AUSTIN
<b>License Number</b>	0402050080
<b>License Description</b>	Professional Engineer License
<b>Rank</b>	Professional Engineer
<b>Address</b>	BRISTOW, VA 20136
<b>Initial Certification Date</b>	2012-06-07
<b>Expiration Date</b>	2018-06-30

**ATTACHMENT 3.3.1  
KEY PERSONNEL RESUMES**

## ATTACHMENT 3.3.1

### KEY PERSONNEL RESUME FORM

<b>Brief Resume of Key Personnel anticipated for the Project.</b>	
a. Name & Title: <b>JAN SHERMAN, DISTRICT MANAGER</b>	
b. Project Assignment: <b>DESIGN-BUILD PROJECT MANAGER</b>	
c. Name of all Firms with which you are currently employed at the time of SOQ submittal. In addition, please denote the type of employment (Full Time/ Part Time): <b>THE LANE CONSTRUCTION CORPORATION (Full Time)</b>	
<p>d. Employment History: With this Firm <b>18 Years</b> With Other Firms <b>0 Years</b></p> <p>Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below):</p> <p><b>The Lane Construction Corporation, 2002-Present:</b> Mr. Jan Sherman has been working for LANE for over 18 years. His construction experience consists of a wide assortment of projects ranging in value from several thousand to over \$200M. His project experience includes asphalt plant operations; asphalt runway, taxiway, and apron construction; bridge, structure, and parking lot construction; cut and cover pedestrian tunnels; and trail construction. The scopes of his projects have included bridge replacement, roadway widening and rehabilitation, dirt and rock excavation, blasting, excavation support, micro-piles, caissons, underground utilities, storm drainage, reinforced structural concrete, architectural concrete, concrete pavement, asphalt pavement, milling, traffic control, site electrical, interior electrical, mechanical, plumbing, terrazzo, precast concrete, elevators, escalators, moving walkways and various finishes. Throughout his career with LANE, Mr. Sherman has performed as an Estimator, Foreman, QC Technician, QC Manager, Project Engineer, Project Manager, and currently District Manager. His responsibilities have included the management of office &amp; field personnel, adherence to corporate safety policies, contract administration, submittals, requests for information, payment requisitions, project scheduling, procurement, change order negotiations, management of resources and costs, and subcontractor coordination.</p>	
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: <b>Clarkson University, Potsdam, NY/ B.S./1998/ Civil Engineering</b>	
f. Active Registration: Year First Registered/ Discipline/VA Registration #: <b>N/A</b>	
<p>g. Document the extent and depth of your experience and qualifications relevant to the Project.</p> <ol style="list-style-type: none"> <li>1. <i>Note your role, responsibility, and specific job duties for each project, not those of the firm.</i></li> <li>2. <i>Note whether experience is with current firm or with other firm.</i></li> <li>3. <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i></li> </ol> <p><b>(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.)</b></p> <p>* On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.</p>	
<b>VDOT, I-66 Route 15 Interchange Reconstruction, Prince William County, VA (DESIGN-BUILD)</b>	
<b>Name of Firm:</b> The Lane Construction Corporation	<b>Project Role:</b> Design-Build Project Manager
<b>Beginning Date:</b> 2014	<b>End Date:</b> 7/2017 (est)
<p><b>Specific Responsibilities:</b> As DBPM for this project, Mr. Sherman is responsible for the overall project design and construction. He supervises and manages the design, construction, quality management, contract administration and other services required by the contract, including the procurement and timely delivery of all materials, equipment, services and labor. Mr. Sherman ensures all contract obligations are met and successfully avoids and/or resolves disputes in accordance with contract documents. He is responsible for overseeing the construction and field personnel as well as permitting, erosion control, lighting, signing and pavement marking, traffic control, right-of-way and utility relocation. Mr. Sherman also coordinates public outreach and public meetings. <b>Mr. Sherman worked with proposed DM, Mo Kim on this project.</b></p> <p><b>Project Relevance:</b> The I-66/Route 15 Interchange Reconstruction project involves reconstructing the interchange of Route 15 over I-66. The project includes: diverging diamond interchange (DDI), widening of Route 15 and Route 55, construction of a new service road, and replacement of northbound and southbound bridges carrying Route 15 over I-66.</p>	
<b>VDOT, I-581 Valley View Interchange Phase II, Roanoke, VA (DESIGN-BUILD)</b>	
<b>Name of Firm:</b> The Lane Construction Corporation	<b>Project Role:</b> Design-Build Project Manager
<b>Beginning Date:</b> 2013	<b>End Date:</b> 2/2017 (est)
<p><b>Specific Responsibilities:</b> As DBPM Mr. Sherman is responsible for overall construction, quality and safety programs, ensured all requirements and specifications were delivered, contract administration, directed and managed project development and constructability reviews with the designers, defining project scope, goals and deliverables, collaborated with senior management and stakeholders, public outreach and public meetings, estimating resources, supervised the procurement and furnishing of all</p>	



materials, equipment, services and labor necessary for project completion, scheduled project timelines and milestones, supervised team members, and developed best practices and tools for project execution and management.

**Project Relevance:** This \$39 million D-B project, includes the construction of a new DDI at I-581 and Valley View Boulevard. This will be accomplished by the addition of the southbound exit and northbound entry ramps serving I-581/U.S. Route 220 north of the interchange and accompanying auxiliary lanes along I-581/U.S. Route 220 to the Hershberger Road interchange. The existing southbound entry and northbound exit ramps will be adjusted and lengthened to facilitate the other improvements. Valley View Boulevard and the bridge over I-581/U.S. Route 220 will be widened to provide two through lanes in each direction, dual left turn lanes for both the northbound and southbound movements to I-581 through the interchange and a right turn lane onto the northbound I-581/U.S. Route 220 entry ramp. The project also includes the partial demolition of the existing structure; widening and repair of the existing bridge substructure and superstructure; construction of retaining and mechanically stabilized earth (MSE) walls required for the bridge structure, ramps, auxiliary lanes, and Valley View Boulevard widening; acquisition of right-of-way and limited access line revisions; utility relocations; milling and repaving of the existing pavement; installation of two new traffic signals and reconstruction of the existing traffic signals; roadway lighting replacement; complete interchange lighting including under bridge; installation of new and revised signs and pavement markings along I-581, Valley View Boulevard, and the ramps; installation and extension of the drainage system and ditches; ESS control; stormwater management; installation of a new pedestrian bridge along I-581.

**VDOT, I-495 Express Lanes, Fairfax County, VA (DESIGN-BUILD)**

<b>Name of Firm:</b> The Lane Construction Corporation	<b>Project Role:</b> Construction Manager
<b>Beginning Date:</b> 2010	<b>End Date:</b> 2012

**Specific Responsibilities:** As the Area Project Manager on this D-B project, Mr. Sherman was responsible and accountable for oversight of construction activities, assisting in estimating quantities, reviewing construction plans and general conduct of the project in Area 2. In addition, he assisted with the maintenance and updating of the project CPM schedule using Primavera Scheduling software as well as scheduling and assuring continued inspection of all materials and construction for conformance to the contract plans and specifications. **Mr. Sherman worked with proposed CM, Jim Kreider on this project.**

**Project Relevance:** This \$1.5B D-B project involved two new lanes which were constructed in each direction on a 14-mile stretch of I-495 from the Springfield Interchange to just north of the Dulles Toll Road. Area 2 of the Express Lanes encompasses the I-495 interchange at I-66, new ramp access at Route 29, W&OD Trail and overpasses south of Route 7 interchange. Construction of the new interchanges in Area 2 required close coordination with homeowners, WMATA, NVRPA and both vehicular & pedestrian foot traffic through the work areas. Unique to Area 2, an active HOV ramp from I-66 to the beltway was maintained throughout the majority of the project, requiring innovative traffic management and alternate means of construction to build the entire interchange. As one of the more congested interchanges along the beltway, construction was performed in a manner to minimize impacts to the traveling public. The project encompassed the replacement of more than \$260 million of aging infrastructure, including more than 50 bridges and overpasses. Similar to the proposed I-66 EB Widening project, this project included MOT, bridge/structure replacement, roadway widening, survey, QA/QC, hydraulics, and public involvement/relations and all associated project management functions.

h. 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. Mr. Sherman is not required on-site full-time.**

## ATTACHMENT 3.3.1

### KEY PERSONNEL RESUME FORM

<b>Brief Resume of Key Personnel anticipated for the Project.</b>
a. Name & Title: <b>SYED KHAN PE, CCM, DBIA, QUALITY ASSURANCE MANAGER</b>
b. Project Assignment: <b>QUALITY ASSURANCE MANAGER</b>
c. Name of all Firms with which you are currently employed at the time of SOQ submittal. In addition, please denote the type of employment (Full Time/ Part Time): <b>CES CONSULTING LLC (Full Time)</b>
d. Employment History: With this Firm <b>4 Years</b> With Other Firms <b>31 Years</b> 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): <b>CES Consulting LLC, Quality Assurance Manager, 2013-Present:</b> Mr. Khan is a Licensed Professional Engineer and a Certified Design Build Professional (DBIA) who has more than 35 years of professional experience in managing Design Build and Traditional transportation projects. He has used his extensive Quality Assurance (QA) and Quality Control (QC) Management experience for successful completion of I66 Spot 2 Widening in Fairfax/Arlington County, I95 HOV widening in Fairfax/Prince William County, I395 reconstruction in Washington DC, Local Roads and a Ten Lane Five Mile Freeway (ten lanes) for an overseas project. Mr. Khan has managed Highways and Bridge construction projects in various capacities from developing Project QA and QC plans, developing standardized documents to maintain auditable testing records, developing audit criteria and frequencies, creating ties between project schedule activities and quality documents, establishing logs to track and monitor testing requirements and directing the staff in pursuing QA and/or QC duties. <b>Area Manager/QC Manager for Parsons Brinkerhoff, Qatar Local Roads and Drainage Program, 2011 – 2013:</b> Mr. Khan was responsible for overseeing Quality Assurance Management as well as coordinating the design management, construction contract procurement, construction management, handing over and overseeing the defect liability period and final handing over of roads and drainage projects. He led all coordination efforts with other functional groups in the program management organization such as design specialists, project controls, contract management, claims specialists, construction supervision staff and the client for delivering the projects. The program required coordination with various other major programs and government agencies such as Ministry of Municipal Affairs, Ministry of Environment, President’s Executive Office and Central Planning Office of Qatar. The construction value of the projects supervised by him was approximately \$500 Million. <b>Deputy Director for Yas Island (Quality Control) 2007 – 2011:</b> Responsible for the development of Infrastructure projects at Yas Island, Mr. Khan was directly responsible for the design, procurement, and Quality Control Management of the following transportation and utilities projects on Yas Island: A 15 mile, 10- lane freeway with several interchanges, roads and waterway crossings connecting Yas Island to Mina Zayed via Saadiyat Island, Design & Construction of an underwater tunnel (0.8 miles long) connecting Yas Island to Raha Beach; and construction of all internal roads, surface parking lots, and multilevel parking structures. The total value of the projects supervised by Mr. Khan was approximately \$1 Billion. <b>Senior Construction Manager, Parsons Transportation Group, Transportation Improvement Program, 2002 – 2007:</b> The projects under the program included construction of highways, interchanges, new bridges, widening of existing bridges, roadway widening, and installation of drainage pipes, extensive ITS/TMS work and overhead signs. In addition, from 2005 to 2007, he worked on the construction of Terminal Building at Abu Dhabi Airport which was a Design-Build project. Mr. Khan managed CEI Staff, for the oversight of all testing, documentation and payment of work on site, working with FHWA/Design Engineer/Contractor to resolve field construction issues. He enforced specifications/standards and ensured that all Non-Conforming Work was properly documented through NCR and remediated and closed out. AS RE, Mr. Khan also ensured that all work orders, pay estimates & project closeouts are done as per Quality Control and Quality Assurance procedures. The total value of projects managed under the program is approximately \$400 Million.
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: <b>State University of New York at Buffalo/ MS/ 1989/ Construction Management</b> <b>NED University of Engineering &amp; Technology, Pakistan/ BS/ 1981/ Civil Engineering</b>
f. Active Registration: Year First Registered/ Discipline/VA Registration #: <b>Professional Engineer/1995/VA #31057</b> <b>Certified Construction Manager, CCM; PMP; DBIA; VDOT Certifications: Pavement Marking (2018); Asphalt Field Levels I &amp; II (2018); Others: DCR/DEQ Erosion &amp; Sediment Control (2017); Intermediate Work Zone Traffic Control (2017); Nuclear Gauge Safety (2016); ACI Concrete Field (2018); OSHA 10-hour</b>
g. Document the extent and depth of your experience and qualifications relevant to the Project. 1. <i>Note your role, responsibility, and specific job duties for each project, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i>

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

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

**VDOT, I-66 Spot 2 Improvements, Fairfax County, VA**

<b>Name of Firm:</b> CES Consulting LLC	<b>Project Role:</b> Senior Construction Manager
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<b>Beginning Date:</b> 2013	<b>End Date:</b> 2016
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**Specific Responsibilities:** As Senior Construction Manager for this \$33 Million project, Mr. Khan was responsible for overseeing all of the office engineering and inspection efforts to assure Quality Assurance compliance with contract requirements. Mr. Khan was managing the Project Quality Management Team, VDOT and Consultant Staff. He was responsible for the oversight of all testing, documentation and payment of work on site, working with FHWA/Design Engineer/Contractor to resolve field construction issues. Additionally, he enforced VDOT specifications/standards and ensured that all non-conforming work was properly documented, remediated and closed-out.

**Project Relevance:** The Project entailed Roadway and Bridge widening, Storm drainage, Sound walls, In-plan utility relocations, Overhead sign installation, and pavement construction. Extensive MOT work through multiple phased construction, Interstate corridor lighting, ITS communication equipment/duct bank installation and relocation, variable message boards and closely coordinated work with WMATA representatives for compliance with their Manual.

**Transurban, 395 Express Lanes, Fairfax & Arlington Counties, and City of Alexandria, VA (DESIGN-BUILD)**

<b>Name of Firm:</b> CES Consulting LLC	<b>Project Role:</b> Program Management
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<b>Beginning Date:</b> 9/2016	<b>End Date:</b> Present
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**Specific Responsibilities:** Mr. Khan was hired for this GEC Contract to assist in all Program Management activities. He is involved in Program Management activities that include: developing procurement schedule, developing design build procurement documents such as RFQ and RFP, developing P3 procurement documents such as RFQ and RFP (part of alternate procurement plan), assisting in budget development, writing technical references for both Design Build and P3 procurement, participating in Risk Management exercises and development of Risk Register, and liaison with various VDOT Specialty Groups.

**Project Relevance:** The scope of this \$300M project includes: interstate widening, improvements to interchange ramps, bridge rehabilitation, parking improvements, utilities, ROW, installation of TMS, and ITS components. The 395 Project also includes the design and construction of required sound barriers along the I-395 corridor (and connecting roadways, where applicable), as well as roadway, traffic signal, TTMS, and parking lot improvements on the Pentagon reservation.

**Qatar Local Roads and Drainage Program, Qatar, UEA (DESIGN-BUILD)**

<b>Name of Firm:</b> Parsons Transportation Group	<b>Project Role:</b> Area Manager
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<b>Beginning Date:</b> 2011	<b>End Date:</b> 2013
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**Specific Responsibilities:** As Area Manager/Quality Control Manager, Mr. Khan was responsible for managing and overseeing Quality Assurance Management. He led all coordination efforts with other functional groups in the program such as design specialists, project controls, contract management, claims specialists, construction supervision staff and the client for delivering the projects. Mr. Khan supervised the development of Quality Assurance Program that included a detailed narrative, record keeping documents for Quality Assurance Tests, Recording and Closing out of all Non-Conformance Items and generating NCR Reports. He worked with multiple contractors to ensure that the quality of work was uniform across all contracts, specifications/standards were followed across all contracts, and payments were made as per contract terms and conditions.

**Project Relevance:** This \$500 Million project included construction of roads and drainage works using multiple contractors. The project scope varied from construction of new roads, new storm water drainage system, widening and upgrading of the existing roadway and drainage system, construction of new highways, bridges and interchanges. The project also included public outreach, traffic maintenance and management, extensive stake holder coordination, pedestrian and bike access, environmental compliance, extensive landscaping of public areas along the roads and highways.

h. 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. Mr. Khan is not required on-site full-time.**

## ATTACHMENT 3.3.1

### KEY PERSONNEL RESUME FORM

<b>Brief Resume of Key Personnel anticipated for the Project.</b>
a. Name & Title: <b>C. MO KIM, P.E., DBIA / PRESIDENT</b>
b. Project Assignment: <b>DESIGN MANAGER</b>
c. Name of all Firms with which you are currently employed at the time of SOQ submittal. In addition, please denote the type of employment (Full Time/ Part Time): <b>RINKER DESIGN ASSOCIATES, P.C. (FULL TIME)</b>
d. Employment History: With this Firm <b>22</b> Years With Other Firms <b>1</b> 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): <b>Rinker Design Associates, P.C., 2003-Present:</b> As Principal-In-Charge of transportation services, Mr. Kim is responsible for overseeing and managing all elements of roadway design, hydrology and hydraulics, and construction plans and providing overall direction of RDA's Transportation Department. His duties include Quality Control and Quality Assurance (QA/QC) for all professional services and oversight of all subconsultant work, placing strong emphasis on constructability reviews and best value solutions for design-build (D-B) projects and providing hands-on, integrated techniques. Mr. Kim is a DBIA professional, and is currently a member of the VTCA's Design-Build Committee assisting to guide the industry. <b>Rinker-Detwiler and Associates, P.C., 2002-2003:</b> As primary Point of Contact on numerous roadway improvement projects, Mr. Kim was responsible for managing all aspects of design and performing IGRDS to Geopak migration for the firm. He was Project Manager/Lead Designer on several VDOT L&D projects, performing geometric layouts, drainage design, stormwater management, flood studies, maintenance of traffic, value engineering, and quality control. He was also responsible for providing bid assistance, construction support, and review of shop drawings as the Engineer of Record. In these roles, Mr. Kim has been involved in many transportation projects over the last 15 years including: <ul style="list-style-type: none"><li>• Purple Line Light Rail Improvement (Maryland) – Utilities Program Manager/Executive Committee – P3 (2015-2016)</li><li>• I-64 Capacity Improvement Segment 2 – Design QA Manager – D-B (2015-2016)</li><li>• Route 29 Solutions – Design QA Manager for Route 29 Widening Phase – D-B (2015-2016)</li><li>• I-395 Express Lanes – Utilities/ROW Program Manager – P3 (2015-2016)</li><li>• Route 7 Widening and Bridge Rehab over Dulles Toll Road – Design QA Manager – D-B (2014-2016)</li><li>• Rolling Road/Franconia-Springfield Parkway Interchange Improvements – Design QA Manager – D-B (2014-2015)</li><li>• I-95/Temple Avenue Interchange – Design QA Manager – D-B (2013-2016)</li><li>• I-66/Route 15 Interchange Reconstruction – Design Manager – D-B (2013-2016)</li><li>• Elden Street Widening – Design Manager – D-B-B (2013-2016)</li><li>• I-95 Express Lanes – TMP/Utilities/ROW Program Manager – P3 (2013-2014)</li><li>• GMU Campus Drive – Design Manager – D-B (2012-2015)</li><li>• I-581/Elm Avenue Interchange Improvements – Design QA Manager – D-B (2012-2015)</li><li>• Heritage Center Parkway – Design QA Manager – D-B (2012-2014)</li><li>• Route 460 GEC – ROW/Drainage/Utility Support – APD (2012-2014)</li><li>• Prince William County Parkway – Design QA Manager – D-B (2011-2015)</li><li>• Middle Ground Boulevard Extension – Design QA Manager – D-B (2011-2015)</li><li>• Rollins Ford Road – Design Manager – D-B-B (2010-2014)</li><li>• Route 36 Improvements – Design QA Manager – D-B (2010-2013)</li><li>• Route 28 Widening (Prince William County) – Design Manager/Design QA Manager – D-B-B (2010-2016)</li><li>• Route 15 PPTA – Design Manager – PPTA/D-B (2006-2012)</li><li>• Stringfellow Road Widening – Design Manager – D-B-B (2005-2015)</li><li>• Route 29 Widening – Design Manager – D-B-B (2004-2016)</li><li>• Sudley Manor Drive PPTA – Design Manager – PPTA/D-B (2004-2010)</li><li>• Centreville Road – Lead Designer/Design Manager – D-B-B (2002-2009)</li><li>• Minnieville Road – Lead Designer/Design Manager – D-B-B (2002-2008)</li><li>• Linton Hall Road – Lead Designer/Design Manager – D-B-B (2002-2004)</li></ul>
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: <b>University of Virginia, Charlottesville, VA / B.S. / 1993 / Civil Engineering</b>
f. Active Registration: Year First Registered/ Discipline/VA Registration #: <b>VA/1999/PE/032943, MD/2006/PE/032436, DC/2012/PE/040132, NC/2013/PE/040132, SC/2014/PE/31274, DBIA/2012/DBIA Professional</b>
g. Document the extent and depth of your experience and qualifications relevant to the Project. <ol style="list-style-type: none"><li>1. <i>Note your role, responsibility, and specific job duties for each project, not those of the firm.</i></li><li>2. <i>Note whether experience is with current firm or with other firm.</i></li></ol>



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 Route 15 Interchange Reconstruction, Prince William County, VA (DESIGN-BUILD)**

<b>Name of Firm:</b> Rinker Design Associates	<b>Project Role:</b> Design Manager
<b>Beginning Date:</b> 2013	<b>End Date:</b> 07/2017 (est)

**Specific Responsibilities:** As Design Manager, Mr. Kim was responsible for the design, management, and QA/QC for complete roadway construction plans as well as the supplemental IMR and public outreach associated with the introduction of the DDI design. Mr. Kim's project responsibilities included design oversight of roadway, TMP, utility coordination/design, bridge reconstruction/widening design, environmental permitting, landscaping, signage and signals, and geotechnical analysis. Mr. Kim was responsible for ensuring that the proposed DDI design innovation conformed to the Contract Documents. His close coordination with LANE, VDOT, Town of Haymarket, Prince William County, utility companies, and adjacent property owners ensured that the design requirements of the contract were met. With the project construction nearly complete, Mr. Kim work is integrated with the project team reviewing shop drawings, ensuring adherence to specifications, and answering RFIs. *The Project Team consists of Jan Sherman, Mark Gunn, John Myers, Adam Welschenbach, Tony Dean, and Steven Thompson.*

**Project Relevance:** This \$36M D-B project involves the development of the first proposed DDI in Northern Virginia, accompanied by significant traffic volumes and widening along Route 55 in the Town of Haymarket. The TMP on this project was complex and required significant integration of the roadway and bridge designers, as it encompasses complete bridge reconstruction and the widening of adjacent roadway and interchange ramp work on I-66. Strategic public outreach measures were adopted early in the project to resolve public and political opposition to the innovation. Information meetings with property owners, elected officials, and stakeholder on an intimate level proved to be a key to the success. In collaboration with VDOT, an interactive exhibit was presented at a public outreach meeting to mitigate any misunderstanding in navigating a DDI configuration.

**VDOT, Route 7 over Dulles Toll Road, Fairfax County, VA (DESIGN-BUILD)**

<b>Name of Firm:</b> Rinker Design Associates, P.C.	<b>Project Role:</b> Design Quality Assurance Manager
<b>Beginning Date:</b> 2015	<b>End Date:</b> 2016

**Specific Responsibilities:** As Design Quality Assurance Manager, Mr. Kim was responsible for the plan quality of all disciplines encompassed under the design elements of work including design services and work being performed by subconsultants. Duties and responsibilities included the review of roadway widenings, structural bridge plans, retaining wall designs and ramp improvements. Project responsibilities also included the review of open and closed storm drain systems, SWM, TMP, Signals and utility coordination/design. He was responsible for ensuring the design quality in adherence to VDOT and AASHTO design criteria. *Mr. Kim worked closely with, Darell Fischer, Mark Gunn, John Myers, Tony Dean, Adam Welschenbach, and Steven Thompson.*

**Project Relevance:** This \$40M D-B project consisted of the development of roadway widening along Route 7, on and off-ramps for the Dulles Toll Road and grade separated pedestrian improvements. Key elements included the bridge deck replacement of the bridge over the DTR and close coordination with MWAA and WMATA to avoid and mitigate impacts to RW and traction power. In addition, our team had to ensure the structural integrity of the pier columns during construction adjacent to WMATA facilities.

**VDOT Route 645 Stringfellow Road Improvements, Fairfax County, VA (DESIGN-BID-BUILD)**

<b>Name of Firm:</b> Rinker Design Associates, P.C.	<b>Project Role:</b> Design Manager
<b>Beginning Date:</b> 2005	<b>End Date:</b> 2015

**Specific Responsibilities:** As Design Manager, Mr. Kim provided engineering services for this 2.02-mile project for right of way and construction plans including roadway design, hydraulic design, traffic engineering design (including traffic data collection and analysis), sign, signal, pavement marking, lighting plans and ITS, retaining wall design, permit sketches, coordination of utility design and supplemental survey data with roadway design and construction coordination and support. He was responsible for administering the contract and overseeing all elements of the professional engineering design services. He served as the primary point of contact for VDOT and was responsible for all aspects of design quality and oversight of personnel and subconsultants. He provided extensive stakeholder coordination and was responsible for developing a best-value solution to the geometric design due to heavy utility impacts and Fairfax County stewardship. *The Project Team consisted of Mark Gunn, John Myers, Adam Welschenbach, Tony Dean, and Steven Thompson.*

**Project Relevance:** This \$36M D-B-B project consisted of widening the existing two-lane roadway to a four-lane divided roadway with on-road bicycle lanes, sidewalks and trails. The project passes through a densely populated residential corridor with several public facilities including a library, schools and parks, as well as several stream crossings. In addition, the corridor had major utilities including a newly installed 24-inch water main, several large aviation fuel lines as well as numerous other overhead and underground utilities. Roadway design required various avoidance strategies regarding utilities, parks and schools. As a result, the proposed alignment crisscrossed the existing alignment thereby complicating the TMP. In addition to the alignment challenges, the TMP also provided for pedestrian access during construction to facilitate the numerous pedestrian receptors (e.g., schools, ball fields, library, etc.). RDA prepared and participated in frequent meetings with VDOT, Fairfax County, the public, and other stakeholders to create a partnering approach focused on resolving challenges. Finally, RDA prepared detailed utility relocation information plans depicting as-built information in plan, profile, and cross section views.

- h. 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. Mr. Kim is not required on-site full-time.**

**ATTACHMENT 3.3.1**

**KEY PERSONNEL RESUME FORM**

<b>Brief Resume of Key Personnel anticipated for the Project.</b>	
a. Name & Title: <b>JAMES KREIDER, P.E., PROJECT MANAGER</b>	
b. Project Assignment: <b>CONSTRUCTION MANAGER</b>	
c. Name of all Firms with which you are currently employed at the time of SOQ submittal. In addition, please denote the type of employment (Full Time/ Part Time): <b>THE LANE CONSTRUCTION CORPORATION (Full Time)</b>	
d. Employment History: With this Firm <b>10</b> Years With Other Firms <b>0</b> 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): <b>The Lane Construction Corporation (2006-Present):</b> Mr. Kreider has over a decade of experience in the construction industry and is a registered Professional Engineer in Virginia. During his career with LANE, he has rapidly moved up from an Engineer to his recently promoted current position as Project Manager. He is responsible for the management of the design, construction, quality, and contract administration on these projects. He provides strategic planning and execution for projects, leads a team of project and construction managers, and works with design and construction teams on innovative techniques and means and methods to execute projects. He organizes and assigns equipment, personnel, and subcontractors to execute each project. He leads and implements safety initiatives, establishes project objectives, policies, procedures and performance standards, sets and monitors budgets, and assures that a quality management system is in place.	
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: <b>Pennsylvania State University, University Park, PA, / B.S. / 2006/ Civil Engineering</b>	
f. Active Registration: Year First Registered/ Discipline/VA Registration #: <b>2012/Professional Engineer/0402050080</b>	
g. Document the extent and depth of your experience and qualifications relevant to the Project. 1. <i>Note your role, responsibility, and specific job duties for each project, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i> <b>(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.)</b> * On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.	
<b>VDOT, I-66 Route 15 Interchange Reconstruction, Prince William County, VA (DESIGN-BUILD)</b>	
<b>Name of Firm:</b> The Lane Construction Corporation	<b>Project Role:</b> Assistant Project Manager
<b>Beginning Date:</b> 2014	<b>End Date:</b> 07/2017 (est)
<b>Specific Responsibilities:</b> As Assistant Project Manager on this project, Mr. Kreider is responsible for managing the entire construction process. He coordinates subcontractors' schedules, creates progress schedules to maintain cost-effectiveness, and communicates effectively with quality control for inspections and daily routines. He is responsible and accountable for planning, scheduling, cost, D-B conformance and quality control (QC). He coordinates with and monitors contract progress with VDOT and subcontractors (including adherence to contractual requirements and specifications), and oversees the overall safety and quality control programs.	
<b>Project Relevance:</b> The I-66/Route 15 Interchange Reconstruction project (the first DDI in Northern Virginia) involves reconstructing the interchange of U.S. Route 15 (James Madison Highway) over Interstate 66 (I-66). The project includes: complex interchange (DDI), roadway widening (Route 15 and Route 55), construction of a new service road, and replacement of northbound and southbound bridges carrying Route 15 over I-66.	
<b>VDOT, I-495 Express Lanes, Fairfax County, VA (DESIGN-BUILD)</b>	
<b>Name of Firm:</b> The Lane Construction Corporation	<b>Project Role:</b> Project Engineer /Assistant Construction Manager
<b>Beginning Date:</b> 2009	<b>End Date:</b> 2012
<b>Specific Responsibilities:</b> As the Assistant Construction Manager on this project, Mr. Kreider was responsible and accountable for coordinating with design team members, supervising engineering, survey, and QC staff, developing and maintaining the project schedule, tracking and evaluating the project schedule and cost, scheduling subcontractors' activities and on-site engineering calculations and drawings. He devised and implemented hazard analysis and safety procedures for crews and equipment, provided training for job engineers assigned as subordinates, and works with the designer and owner to ensure materials used and work	



performed met contract requirements, design plans, and specifications. (Mr. Kreider started the project as Sr. Project Engineer and was promoted to Assistant Construction Manager in 2011)

**Project Relevance:** Mr. Kreider was responsible for the roadway construction and elements of the 495 Interstate widening and improvements as part of this \$1.5 billion P3 project. Two new lanes were constructed in each direction on a 14-mile stretch outside the existing lanes of I-495, from the Springfield Interchange to just north of the Dulles Toll Road. The project encompassed the replacement of more than \$260 million of aging infrastructure, including more than 50 bridges and overpasses. The project also included the installation of a large storm-water management wet pond with an earthen dam above the Chain Bridge Road interchange. This project included MOT, bridge/structure replacement, roadway widening, survey, QA/QC, hydraulics, and public involvement/relations.

**VDOT, I-95 Express Lanes, Fairfax, Prince William & Stafford Counties, VA (DESIGN-BUILD)**

<b>Name of Firm:</b> The Lane Construction Corporation	<b>Project Role:</b> Assistant Construction Manager
<b>Beginning Date:</b> 2012	<b>End Date:</b> 2014

**Specific Responsibilities:** Mr. Kreider, as Assistant Construction Manager, was responsible for the management of the construction process which included the QC program, project schedules, cost control, subcontractor coordination, work plans, and specific means/methods for carrying out the work. He was responsible for ensuring the materials used and work performed met contract requirements and the “approved for construction” plans and specifications. Mr. Cross had extensive involvement with the complex MOT plans and implementation, relocation, adjustments, and coordination of utilities, and helped address environmental concerns (this project has been lauded for its landscaping and environmental measures).

**Project Relevance:** This \$722 million D-B project created approximately 29 miles of Express Lanes on I-95 from Alexandria, VA on the northern terminus to Stafford, VA at the southern terminus. This project also added capacity to the existing HOV Lanes from the Prince William Parkway to the vicinity of Edsall Road; improved the existing two HOV lanes for six miles from Route 234 to the Prince William Parkway. A 9-mile reversible two-lane extension of the existing HOV lanes from Dumfries to Garrisonville Road in Stafford County helped to alleviate the worst traffic bottleneck in the region. Similar to the I-66 Widening project, this project consisted of an extensive utility relocation, hydraulics, MOT, public involvement, coordination with multiple stakeholders and VDOT, sound walls, QA/QC, roadway widening, structure and bridge work; and a 8.3 mile roadway extension that consisted of major clearing, earthwork, and bridge flyovers. The project involved comprehensive public relations with over 365 outreach meetings.

h. 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 (including part time assignments). **Current Assignment:** VDOT I-66 Route 15 Interchange Reconstruction **Role:** Assistant Project Manager **Duration of Assignment:** Estimated completion date is 07/2017. Mr. Kreider will be available onsite full time at the start of construction for the I-66 Eastbound Widening Inside the Beltway project.

**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: <b>495 EXPRESS LANES</b> Location: <b>Fairfax County, VA</b> <b>DESIGN-BUILD</b>	Name: <b>HNTB/HDR</b>	Name of Client./ Owner: <b>VDOT</b> Phone: <b>540.829.7500</b> Project Manager: <b>John Lynch, P.E.</b> Phone: <b>540.829.7512</b> Email: <b>John.Lynch@vdot.virginia.gov</b>	<b>12/2012</b>	<b>112012</b>	<b>\$1,346,560</b>	<b>\$1,481,670</b>	<b>\$642,000</b>

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 with multiple phases, segments, elements, and/or contracts shall not be considered a single project. If a project listed includes multiple phases, segments, elements, and/or contracts, the SOQ may be rendered non-responsive. In any case, only the first phase, segment, element, and/or contract listed will be evaluated.

<p align="center"><b>Similar Scope of Work:</b></p> <ul style="list-style-type: none"> <li>• Design-Build</li> <li>• Teamed with RDA</li> <li>• Roadways</li> <li>• Survey</li> <li>• Environmental</li> <li>• Geotechnical</li> <li>• Hydraulics</li> <li>• Traffic Control Devices</li> <li>• Utilities</li> <li>• Soundwalls</li> <li>• Signs, Sign Structures, and Foundations</li> <li>• Lighting</li> <li>• QA/QC</li> <li>• Intelligent Transportation Systems (ITS)</li> <li>• Construction Engineering and Inspection</li> <li>• Overall Project Management</li> <li>• Stormdrain and SWM</li> <li>• Guardrail</li> <li>• Transportation Management Plan</li> <li>• Right-of-Way</li> <li>• Stakeholder Coordination/Public Involvement</li> </ul>	<p align="center"><b>PROJECT SCOPE</b></p> <p>Construction of four new managed/HOV traffic lanes (two in each direction) in the median of the existing lanes on the Capital Beltway. Work included the reconstruction of ramps, heavy maintenance of traffic effort, shoulder reconstructions, interchanges, frontage roads, bridge over and underpasses and bridge widening's, and pedestrian crossings. The Project encompassed the replacement of more than \$260M of aging infrastructure, including 12 interchanges and 58 bridges. Construction of the Project required close coordination with VDOT, MWAA, WMATA, local jurisdictions, businesses, community associations, and the traveling public. LANE provided nearly all of the project supervision and workforce, plus all asphalt paving.</p>	
<p align="center"><b>Proposed Personnel on Project:</b></p> <p>Jan Sherman (LANE)      Dan Wilson (LANE) Chris Monahan (LANE) James Kreider, PE (LANE)</p>	<p align="center"><b>RELEVANT PROJECT ELEMENTS TO I-66 WIDENING</b></p> <p><b>Roadway:</b> The I-495 Express Lanes project is one of the largest roadway projects constructed in the Commonwealth. Similar to the I-66 Widening project, the I-495 Express Lanes project widened the existing roadway and improved numerous interchanges. The Express Lanes project has similar scope elements including, roadway widening, box culvert extensions, ITS, ramp extensions, shoulder strengthening, work in high volume ADT's, sound barriers, complex MOT schemes and bridge widenings.. 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.</p> <p><b>ITS:</b> 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.</p> <p><b>Maintenance of Traffic:</b> A key challenge on the I-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. By conducting extensive traffic studies and through close coordination with VDOT and the local jurisdictions, our Team produced a number of innovative designs, work zone access methods, 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. One of the significant challenges for this project was not starting daytime lane closures until after 9:30 am and having all four lanes of traffic open again at 3:30 pm. Overnight closures were similarly restricted and exceptions were rare – primarily for steel erection, where short-duration total closures were permitted. LANE fulfilled this requirement by not reducing traffic capacity during construction.</p> <p><b>Complex Utility Relocation:</b> There was a significant utility coordination effort, both in relocation of existing utilities and the installation of new services for lighting and toll facilities. Two high voltage transmission lines ran in a corridor parallel to the main alignment of the project, crossing several arterial roads that were associated with the project. At one arterial there was insufficient clearance between the transmission line sag and the road surface. The transmission line had to be raised by installing an insert in one supporting tower. More than 102,000 linear feet of utilities, owned by 15 utility owners were relocated including water, sanitary sewer, electric, and telecommunications. In total, over 175 utility conflicts were identified and resolved.</p> <p><b>Environmental:</b> The project alignment traversed multiple wetlands, wooded areas, and state and county park lands, which required identification and protection of specimen trees on the project perimeter as well as wetland delineation, protection and conversion.</p> <p><b>Significant Economic Corridor:</b> The Capital Beltway (I-495) 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 business in the Washington suburbs following the Beltway's completion quickly made the Beltway the area's "main street" for local traffic as well. Similar to I-95 Southern Extension project, numerous large shopping centers, community colleges, and corporate employment centers were purposely built adjacent to the Beltway, and these added greatly to the traffic. I-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.</p>	

**Public Outreach/Involvement:** More than 2,000 public outreach meetings were conducted and, in coordination with VDOT, the Team kept the public involved through various media methods: project website, routine newsletters, and brochure mailings to residents and business.

**Safety:** The I-495 Express Lanes project has been the recipient of numerous awards including a safety award for more than 5,000,000 manhours without a lost time incident in September 2012. Despite working alongside traffic in a limited area, with many key activities like bridge demolition and steel erection occurring at night, the construction team achieved a Total Recordable Incident Rate (TRIR) of 0.69, which ranks the project among the best heavy civil projects in the nation.

**EVIDENCE OF PERFORMANCE**

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

“Project was built over four years under traffic as high as 200,000 vpd and achieved 5 million safe work hours as of September 2012 without a lost time incident, making it among the safest heavy civil projects ever built in the U.S.” - *Public Works Financing Newsletter, 12/2012*

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



**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: <b>95 EXPRESS LANES</b> Location: <b>Fairfax, Prince William and Stafford Counties, VA</b> <b>DESIGN-BUILD</b>	Name: <b>HDR/HNTB</b>	Name of Client./ Owner: <b>VDOT</b> Phone: <b>571.483.2651</b> Project Manager: <b>Charlie Warraich, PE</b> Phone: <b>571.273.8229</b> Email: <b>H.S.Warraich@VDOT.Virginia.gov</b>	<b>12/30/2014</b>	<b>12/14/2014</b>	<b>\$691,147</b>	<b>\$726,194</b>	<b>\$326,850</b>

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 with multiple phases, segments, elements, and/or contracts shall not be considered a single project. If a project listed includes multiple phases, segments, elements, and/or contracts, the SOQ may be rendered non-responsive. In any case, only the first phase, segment, element, and/or contract listed will be evaluated.

<p align="center"><b>Similar Scope of Work:</b></p> <ul style="list-style-type: none"> <li>• Design-Build</li> <li>• Teamed with RDA</li> <li>• Roadways</li> <li>• Survey</li> <li>• Environmental</li> <li>• Geotechnical</li> <li>• Hydraulics</li> <li>• Traffic Control Devices</li> <li>• Utilities</li> <li>• Soundwalls</li> <li>• Signs, Sign Structures, and Foundations</li> <li>• Lighting</li> <li>• QA/QC</li> <li>• Intelligent Transportation Systems (ITS)</li> <li>• Construction Engineering and Inspection</li> <li>• Overall Project Management</li> <li>• Stormdrain and SWM</li> <li>• Guardrail</li> <li>• Transportation Management Plan</li> <li>• Right-of-Way</li> <li>• Stakeholder Coordination/Public Involvement</li> </ul>	<p align="center"><b>PROJECT SCOPE</b></p> <p>LANE, as a Construction Joint Venture (CJV) member, shared responsibility for the design and construction of the \$726M I-95 Express Lanes project. The project created approximately 29 miles of Express Lanes in the median of I-95 from Alexandria to Stafford. The scope of work included a 9-mile roadway extension that consisted of maintenance of traffic, poor soils mitigations, shoulder reconstruction, asphalt mill and overlay, structural bridge work, major clearing and earthwork, drainage, an extensive ITS and signing system, and sound walls. LANE provided nearly all of the project supervision and workforce for the work; plus, all of the asphalt paving, soundwall construction and a significant portion of the roadway signage.</p>	
<p align="center"><b>Proposed Personnel on Project:</b></p> <p>Jan Sherman (LANE)      Dan Wilson (LANE) Chris Monahan (LANE)      Mo Kim (RDA) James Kreider, PE (LANE)      Song Kim (RDA) Bill Missell (RDA) Adam Welschenbach (RDA)</p>	<p align="center"><b>RELEVANT PROJECT ELEMENTS TO I-66 WIDENING PROJECT</b></p> <p><b>LANE/HDR/RDA Team:</b> LANE and RDA partnered together to provide complete design services for the I-95 Express Lanes project. Our team's collaborative effort in developing a comprehensive TMP for the corridor, design adjustments to avoid utilities, and expedited utility relocations where avoidance was not feasible ensured that the project stayed on schedule.</p> <p><b>ITS:</b> Identical to the I-66 Widening project, the I-95 Express Lanes project involved sign design and construction support of ITS CCTV traffic surveillance cameras; DMS signs; microwave traffic detectors; video-based automatic incident detection cameras; emergency gate telemetry; express lane access gates; EZ-pass toll equipment; fiber optic communications; power distribution; and emergency back-up power system. LANE was also responsible for the ITS integration.</p> <p><b>Geotechnical:</b> Our Team performed geotechnical investigation and analysis for more than 400 borings; performed pavement design and optimized foundation design in areas containing Potomac clay and acidic sulfate soils (which will most likely be present on the I-95 Southern Extension project).</p> <p><b>Safety:</b> The project recorded nearly 4,000,000 man hours worked with 0 Lost Time Accidents. The project OSHA Recordable Incident Rate was 0.44, well below the industry average of 3.6.</p> <p><b>Roadway:</b> Similar to the I-66 Widening project, LANE performed pavement widenings as well as new pavement in the median of an existing high ADT count Virginia interstate. Additionally, LANE performed shoulder strengthening operations on existing shoulders adjacent to this traffic. Extensive asphalt mill and overlays were also executed. As lane closures were needed for various reasons including overhead steel erection, LANE and RDA devised many innovative ways to keep traffic flowing on existing roadways as well as temporary pavements, some of which were on poor soils that required amendments. This new construction in the median of the roadway provides new access points to serve Virginia-based destinations, including Tysons Corner, City of Alexandria, Arlington County, and major military sites.</p> <p><b>Structures/Bridges:</b> Nine (9) new bridges were constructed along the project corridor. The new bridges included: two curved steel girders, two double span flyovers, three single span bridges with steel girders, one two-span concrete girder bridge and a two-span steel girder bridge. LANE also widened and/or rehabilitated 29 bridges. All of these involved keeping existing traffic moving while performing the work.</p> <p><b>MOT:</b> The I-95 Express Lanes project presented numerous work zone ingress/egress challenges and very tight work areas due to the heavy traffic and median work zone conditions. The I-95 project corridor carries an ADT of nearly 250,000 vehicles per day. The LANE Team mitigated this challenge by working with construction and engineering personnel to devise the best MOT schemes and develop efficiencies; over 1,000 MOT plan sheets were developed and approved. The need for an innovative work zone traffic control and access plan was particularly critical on this project due to the severe deterioration of some of the mainline and surrounding road pavements. Unimpeded access to the existing median was necessary to improve safety, minimize impacts to traffic, reduce stress on existing infrastructure, and accelerate the project schedule.</p> <p><b>Public Involvement:</b> A dynamic public information program was implemented which provided advance information notifications to VDOT and the public. This has been facilitated through meetings, website access, email blasts, flyers, and door to door calls promoting awareness of construction operations and lane closures in order to provide better travel planning through the corridor. The team held over 415 public meetings and the project site had visits from former Governor McDonnell and VDOT Secretary of Transportation Aubrey Layne as well as accolades from current Governor Terry McAuliffe.</p> <p><b>Expedited Project Delivery:</b> The Team had 1,009 days to design and construct this fast track D-B project. The team received NTP on March 27, 2012 and it was imperative that construction start in the first season in order to finish by December 31, 2014. Our Team was able to deliver 123 design packages by implementing over-the-shoulder reviews to help get early approval and were able to begin construction within 4 months of NTP. We were able to complete the project early. In all, the Team completed <b>29 miles in 29 months!</b></p> <p><b>Environmental:</b> Beginning in January 2013, the D-B team led the efforts to restore Swan's Creek—a tributary to the Potomac River and Chesapeake Bay which had been severely eroded and degraded—by installing erosion and sediment controls, placing stone along the creek bed, and micro-grading to allow for habitats and improvements to the overall water quality. With the completed restoration, the stream now feeds higher quality water into the region's waterways. In addition, nearly 7,500 new trees and shrubs were planted as part of the restoration effort.</p>	
<p align="center"><b>EVIDENCE OF PERFORMANCE</b></p> <p>"The progress on the 95 Express Lanes project is a visible reminder of the congestion relief and new travel choices that Virginians will have available to them in less than a year." - Governor Terry McAuliffe.</p> <p>"The 95 Express Lanes combined with the nearly completed 495 Express Lanes will bring a transportation network that manages congestion efficiently, saving time and better connecting commuters with some of Virginia's most important employment centers and military sites." - Sean T. Connaughton, [former] Virginia Secretary of Transportation.</p>		



**ATTACHMENT 3.4.1(a)**

**LEAD CONTRACTOR - WORK HISTORY FORM**

**(LIMIT 1 PAGE PER PROJECT)**

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					Original Contract Value	Final or Estimated Contract Value	
Name: <b>SPRINGFIELD INTERCHANGE, PHASE V</b> Location: <b>Fairfax County, VA</b>	Name: <b>HNTB</b>	Name of Client./ Owner: <b>VDOT</b> Phone: <b>571.483.2584</b> Project Manager: <b>Larry Cloyed</b> Phone: <b>571.483.2584</b> Email: <b>Larry.Cloyed@VirginiaDOT.org</b>	<b>11/2003</b>	<b>11/2003</b>	<b>\$57,718</b>	<b>\$74,348</b> <i>(included bonus for achieving expedited schedule and Owner requested Change Orders)</i>	<b>\$74,348</b>

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 with multiple phases, segments, elements, and/or contracts shall not be considered a single project. If a project listed includes multiple phases, segments, elements, and/or contracts, the SOQ may be rendered non-responsive. In any case, only the first phase, segment, element, and/or contract listed will be evaluated.

Similar Scope of Work:	PROJECT SCOPE	
<ul style="list-style-type: none"> <li>Design-Build</li> <li>Roadways</li> <li>Survey</li> <li>Environmental</li> <li>Geotechnical</li> <li>Hydraulics</li> <li>Traffic Control Devices</li> <li>Utilities</li> <li>Soundwalls</li> <li>Signs, Sign Structures, and Foundations</li> <li>Lighting</li> <li>QA/QC</li> <li>Construction Engineering and Inspection</li> <li>Overall Project Management</li> <li>Stormdrain and SWM</li> <li>Guardrail</li> <li>Transportation Management Plan</li> <li>Right-of-Way</li> <li>Stakeholder Coordination/Public Involvement</li> </ul>	<p>LANE was the Prime Contractor for Phase V of the Springfield I-495/395/95 "Mixing Bowl" Interchange, a \$75M major highway and bridge contract for VDOT. The Springfield Interchange is located in Fairfax County on the Capital Beltway at the convergence of I-95, I-395 and I-495. LANE self-performed all of the structure, excavation and paving work. The complex ramp project included coordination with other contractors, adjacent projects, and VDOT. Work included the widening of ramps and reconstruction of the existing interstate and added new median lanes.</p> <p>The construction of Phase V of the eight-phase multi-contract, long term project contributed to the ultimate creation of a seamless HOV network on I-95/I-395, the Capital Beltway, I-66, the Dulles Toll Road, and future HOV lanes on Braddock Road. This phase of the Springfield Interchange project also required significant Maintenance of Traffic measures for what had been one of the most significant traffic congestion bottlenecks in the country. (Phase VIII was the final contract, constructed as part of Fluor-Lanes's I-495 Express D-B project.)</p> <th style="background-color: #0056b3; color: white;">RELEVANT PROJECT ELEMENTS TO I-66 WIDENING PROJECT</th> <p><b>Maintenance of Traffic (MOT):</b> The Springfield Interchange project required significant MOT measures for what is day in and day out the busiest interchange in the greater Washington Metropolitan area, with peak volumes at rush hour, similar to the traffic flow at the I-66 Widening project. Traffic Control/MOT Devices were implemented on a daily basis to gain access to the work areas of the project. Temporary shifts to the traffic pattern from the normal highway lanes to the shoulders occurred routinely during nighttime operations. Our MOT, TMP and innovative re-sequencing of construction minimized traffic impacts and reduced overall contract time.</p> <p><b>Public Relations/Communication:</b> Both a high profile and highly visible project, the Springfield Interchange also included significant public involvement efforts and coordination with other proximate highway and roadway projects. Community meetings of affected residential neighborhoods and business areas were conducted regularly. Updated traffic conditions and project progress were regularly uploaded to the project website for the travelling public's advisement. Community input was solicited for sound wall placement and construction, among other issues.</p>	RELEVANT PROJECT ELEMENTS TO I-66 WIDENING PROJECT



**Bridges/Structures:** The complex interchange included five (5) new multi-span bridges and reconstruction and widening of two (2) existing bridges with four (4) cast in place retaining walls. Resources totaling 14,591 cubic meters of structural concrete and 206,696 tons of asphalt were installed on an expedited schedule. The project also included bridge widenings and replacement of a bridge deck near Robinson Terminal in Springfield.

**Roadway:** Similar to the I-66 Accessibility Improvement project, construction access to the work zone on the Springfield Interchange was severely limited. LANE created the work site for the new infrastructure by temporarily narrowing travel lanes, shifting lanes where possible onto strengthened shoulders, and utilizing temporary traffic control measures to access the work site. Four (4) MSE walls were constructed as well as the relocation of ramps. The entire Springfield Interchange was constructed in eight phases. LANE originally worked on Phase V; Virginia Paving Company, a division of LANE, paved all eight phases of the project.

**Rail/Transit Coordination:** Coordination included regular interaction with Norfolk Southern and VRE rail systems to accommodate temporary rail crossings and work interfacing. LANE collaborated directly with the railroad companies to gain access for this highly visible and real time traffic sensitive VDOT project; this will also be the methodology for this I-66 project as it is on all projects under LANE management.

**EVIDENCE OF PERFORMANCE**

The Springfield Interchange Improvement project brought tangible congestion relief and safer travel to motorists on one of the busiest interchanges on the east coast. LANE completed this project early on an expedited schedule at the behest of VDOT and was compensated for meeting the goal with a \$6.5M early completion incentive bonus. To earn the bonus LANE added crews, extended overtime hours, and innovatively worked out of the logical construction sequence. The early completion was a success to VDOT, the Community and LANE -- a true Partnering effort by all parties



**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: <b>I-66/Route 15 Interchange Reconstruction</b> Location: <b>Prince William County, VA</b>  <b>(DESIGN-BUILD)</b>	Name: <b>The Lane Construction Corporation</b>	Name of Client.: <b>VDOT</b> Phone: <b>703-259-2960</b> Project Manager: <b>Christiana Briganti-Dunn, P.E., CCM</b> Phone: <b>703-259-2960</b> Email: <b>christiana.briganti@vdot.virginia.gov</b>	<b>06/2014</b>	<b>07/2017 (est.)</b>	<b>\$36,194</b>	<b>\$36,194</b>	<b>\$2,570</b>

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 with multiple phases, segments, elements, and/or contracts shall not be considered a single project. If a project listed includes multiple phases, segments, elements, and/or contracts, the SOQ may be rendered non-responsive. In any case, only the first phase, segment, element, and/or contract listed will be evaluated.

Similar Scope of Work:												
<ul style="list-style-type: none"> <li>• Design-Build with LANE</li> <li>• Roadways</li> <li>• Bridges/Structures</li> <li>• Interchange</li> <li>• Environmental</li> <li>• Geotechnical</li> <li>• Right of Way Acquisition</li> <li>• Hydraulics</li> <li>• Stormdrain and SWM</li> <li>• Demolition of Structures</li> <li>• Pedestrian Accommodations</li> <li>• Retaining Walls</li> <li>• Traffic Control Devices</li> <li>• Signs, Sign Structures, and Foundations</li> <li>• Transportation Management Plan</li> <li>• Traffic Maintenance and Management</li> <li>• Utilities</li> <li>• Stakeholder Coordination</li> <li>• Public Involvement/Communications</li> <li>• QA/QC</li> <li>• Survey</li> <li>• Project Management and Coordination with other Active/Adjacent Construction Projects</li> </ul>												
Personnel on Project:												
<table border="0"> <tr> <td>Mo Kim (RDA)</td> <td>Tony Dean (RDA)</td> </tr> <tr> <td>Sidney Thomas (RDA)</td> <td>John Myers (RDA)</td> </tr> <tr> <td>Mark Gunn (RDA)</td> <td>Adam Welschenbach (RDA)</td> </tr> <tr> <td>Nikhil Despande (RDA)</td> <td>Jan Sherman (LANE)</td> </tr> <tr> <td>Jim Kreider (LANE)</td> <td>Stu Casaola (LANE)</td> </tr> <tr> <td>Chris Monahan (LANE)</td> <td></td> </tr> </table>	Mo Kim (RDA)	Tony Dean (RDA)	Sidney Thomas (RDA)	John Myers (RDA)	Mark Gunn (RDA)	Adam Welschenbach (RDA)	Nikhil Despande (RDA)	Jan Sherman (LANE)	Jim Kreider (LANE)	Stu Casaola (LANE)	Chris Monahan (LANE)	
Mo Kim (RDA)	Tony Dean (RDA)											
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Nikhil Despande (RDA)	Jan Sherman (LANE)											
Jim Kreider (LANE)	Stu Casaola (LANE)											
Chris Monahan (LANE)												

**PROJECT SCOPE**  
RDA provided professional engineering services from their Manassas office serving as the Lead Designer for LANE's I-66/Route 15 Interchange Reconstruction D-B project for VDOT. This \$36M D-B project will reconstruct the I-66/Route 15 interchange to relieve congestion, enhance public safety, operations and capacity, and accommodate forecasted traffic demand in the project area. RDA designed the reconstructed interchange as a Diverging Diamond Interchange (DDI), the third of its kind in the Commonwealth of Virginia, to best accommodate the projected traffic volumes as well as critical pedestrian movements in the interchange area. An extensive analysis by RDA to find an alternate interchange design that would best accommodate traffic demand, reduce the project footprint and environmental impacts, improve constructability and shorten overall construction duration when compared to previously considered alternatives, and reduce overall project cost resulted in selection of the DDI. RDA's responsibilities include:

- Interchange/Roadway Design
- Overall Project Design Management & QA/QC
- Public Involvement
- Utility Relocation Coordination & Design
- Right of Way Acquisition Services
- Transportation Management Plan Design
- Signage & Marking Plan Design
- Drainage Design (Stormwater Management & BMP Design, Erosion Control Plans, Local Drainage Design, Culvert Design, Outfall Analysis)
- Subconsultant Oversight & Management (Structural Design, Environmental Permitting & NEPA Document Update, Traffic Analysis & IMR Update, Signal Design)

**RELEVANT PROJECT ELEMENTS TO I-66 WIDENING INSIDE THE BELTWAY PROJECT**  
**Partnering:** LANE/RDA (the D-B Team) delivered VDOT a best value, innovative design by changing the RFP design from a flyover to a DDI. This same team will provide leadership and expertise on the I-66 Widening Inside the Beltway project.  
**Complex MOT/TMP Design:** Similar to the I-66 Widening Inside the Beltway project, the I-66/Route 15 interchange required a complex TMP to construct the project in a constricted work zone with high traffic volumes and pedestrian mobility. RDA developed the TMP in coordination with LANE's construction team to ensure constructability while maintaining acceptable traffic operations. Additionally, the project team coordinated closely with emergency providers (e.g., police, fire, rescue, etc.) and the hospital (located adjacent to the Project) to ensure that access through work zones would not impede their services. We anticipate similar coordination to ensure corridor safety and response time.  
**Roadway Widening:** Like the I-66 Widening Inside the Beltway project, the I-66/Route 15 project included widening of heavily traveled roadways through a tightly constrained corridor.  
**Pedestrian Accommodations:** Key to the design success was pedestrian access/safety during MOT operations. Our design and implementation along the Route 15 and Route 55 corridors will guide our approach in dealing with the multiple trails impacted or reconstructed as part of the I-66 Widening Inside the Beltway project.  
**Right of Way Reductions:** By introducing a DDI to this interchange and through design efficiencies, our Team was able to condense ROW by reducing impacts from 22 parcels to 16 parcels and eliminating two total parcel takes – saving VDOT over \$500K. Although the I-66 Widening Inside the Beltway project is more linear in nature, our approach will take advantage of lessons learned and develop an acquisition plan that minimizes VDOT's costs.  
**Public Relations:** In addition to meeting and coordinating with the public, the LANE/RDA Team also met with various emergency responders and local school bus drivers, to ensure they have an understanding of the changing traffic patterns and configurations. A similar outreach approach may be prudent to ensure that the I-66 Widening Inside the Beltway project has the same success.

**EVIDENCE OF PERFORMANCE**

- Revisions to the Interchange Modification Report (IMR) was required as part of our Team's innovation. The report was concurrently developed to minimize the impacts of our extended design approval phase. Our Team's collaboration with VDOT and the effective use of our Design-Build techniques allowed us to recover our schedule impacts. The project is anticipated to be on budget and ahead of schedule.
- The LANE/RDA Team assisted VDOT in bringing consensus to the political stakeholders representing the State, County and Town by providing numerous independent education and coordination meetings early in our design process. This resulted in alleviated concerns and excitement over the delivery of our Team's innovation of Northern Virginia's first, fully-integrated Diverging Diamond Interchange.





**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: <b>95 Express Lanes</b> Location: <b>Fairfax, Prince William, and Stafford Counties, VA</b> <b>(DESIGN-BUILD)</b>	Name: <b>Fluor/Lane</b>	Name of Client.: <b>VDOT, NOVA District</b> Phone: <b>571-259-8229</b> Project Manager: <b>Charlie Warraich, P.E.</b> Phone: <b>571-259-8229</b> Email: <b>charlie.warraich@vdot.virginia.gov</b>	<b>08/2012</b>	<b>12/2014</b>	<b>\$900,000</b>	<b>\$900,000</b>	<b>\$2,749</b>

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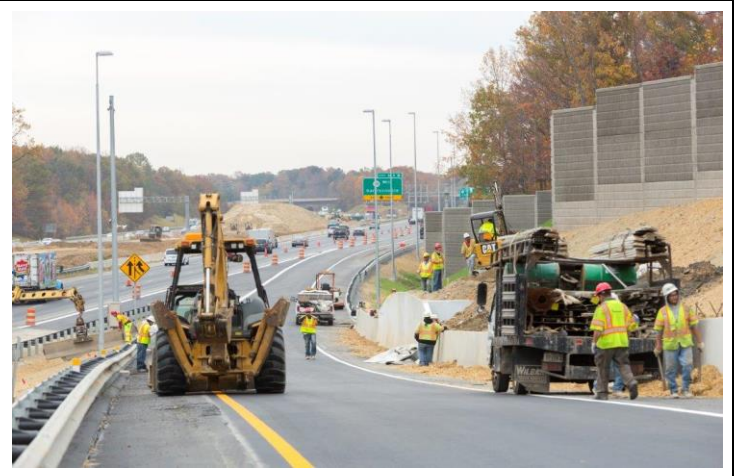
<b>Similar Scope of Work</b>
<ul style="list-style-type: none"> <li>• Design-Build with LANE</li> <li>• Roadway</li> <li>• Geometric &amp; Capacity Improvements</li> <li>• Complex TMP/MOT</li> <li>• Public Involvement/Communications</li> <li>• Third party coordination</li> <li>• Hydraulics</li> <li>• Survey</li> <li>• Right of Way Acquisition</li> <li>• Complex Utilities</li> <li>• Bridges/Structures</li> </ul>
<b>Personnel on Project</b>
Jan Sherman (LANE)      Dan Wilson (LANE) Chris Monahan (LANE)      Mo Kim (RDA) Adam Welschenbach (RDA)      Song Kim (RDA)

**PROJECT SCOPE**  
 RDA designed the TMP/Traffic Control Plans for 21 miles of I-95/I-395 for construction of Express Lanes improvements from Route 234 in Prince William County to the project's northern terminus near Edsall Road in Fairfax County, inside the Capital Beltway as a subconsultant to HDR. The project entailed construction of roadway improvements to upgrade existing HOV lanes to a hybrid high occupancy/tolled facility with new lane construction at the southern end and numerous access points including flyover ramps added throughout the corridor. Significant project components included pavement reconstruction/resurfacing, construction of new bridges and structural widenings, barrier improvements, drainage system upgrades, ITS conduit duct banks, lighting, overhead signage, retaining walls, and soundwalls. As part of completing the TMP/Traffic Control Plans, RDA participated in the coordination of design/construction issues with contractors and VDOT/GEC personnel, developing successful approaches to construction sequence operations that safely and efficiently moved high traffic volumes keeping project construction on schedule. The plans also included the preparation and analysis of detour plans, through the corridor and along the arterial roadways. These services were performed from RDA's Manassas and Fredericksburg offices as well as at the project site office.

Additionally, RDA served as the Utility Coordinator/Right of Way consultant for the entire 29-mile project corridor, which included 8 miles of new roadway starting south at the Route 610-Garrisonville interchange in Stafford County. Based on the project's accelerated schedule, it was critical that all potential conflicts be identified early. If they could not be avoided through design, it was critical that the facilities be relocated in an expeditious manner so the tight deadline would not be delayed.

With over 200 utility crossings/potential conflicts with 20 different utility companies, tracking the Utility Coordination was critical. Working closely with the utility companies and the designers, RDA was able to reduce the number of relocations to less than a dozen. These facilities were relocated with no construction schedule delays. As the construction progressed, additional coordination was required to identify unknown facilities that were uncovered. RDA worked with the utility companies and traced back through old plans to confirm the lines were abandoned.

RDA also worked with designers and multiple electric companies to coordinate the new electrical services required for the corridor. Over 30 new or upgraded service locations/drops were required to provide power for the Intelligent Transportation System (ITS) and roadway lighting. Per the contract, all of the new services had to be 480-volt 3-phase power. Extensive coordination with the power company was required to determine the most cost-effective route to bring this service to the proper location.



**RELEVANT PROJECT ELEMENTS TO I-66 WIDENING INSIDE THE BELTWAY PROJECT**

**LANE/RDA Team:** LANE and RDA partnered together to provide complete design services for the 95 Express Lanes project. Our Team's collaborative effort in developing a comprehensive TMP for the corridor, design adjustments to avoid utilities, and expedited utility relocations where avoidance was not feasible ensured that the project stayed on schedule.

**Interstate Widening:** The 95 Express Lanes project widened portions of the general purpose lanes as well as 21 miles of the preexisting HOV lanes. The risks and approach in handling the design (e.g., matching cross slopes, super elevations, drainage, etc.) are identical to what we expect for the I-66 Inside the Beltway project.

**Maintenance of Traffic:** The I-66 Widening Inside the Beltway project and the 95 Express Lanes project both involve high-volume interstate widening through phased construction. Our approach to MOT for the 95 Express Lanes will provide significant insight and similar experience to draw from. Some similar features include the use of existing/reconstructed shoulders to shift traffic away from the work zone and strategically placed/integrated emergency pull-offs to maximize work zones and construction efficiency.

**Bridge Widening:** A significant number of new, reconstructed, and widened bridges were designed and built along the I-95 Express Lanes project to provide added capacity. HDR, RDA's lead structural engineer for the I-66 Widening Inside the Beltway project, was the lead structures engineer for a large portion of the structures on the 95 Express Lanes project.

**Retaining and Noise Walls:** The 95 Express Lanes project had countless retaining walls and noise walls along both sides of the interstate, which required the preparation and finalization of the noise analyses for implementation. RDA coordinated utility impacts and the acquisition of right of way to facilitate wall construction.

**Geotechnical Challenges:** The 95 Express Lanes project had challenging geotechnical conditions to include Potomac clays and acidic soils. RDA used this information to work with impacted utility owners and developed preliminary designs to avoid associated constructability issues.

**EVIDENCE OF PERFORMANCE**

- Design completed as scheduled – utility coordination completed ahead of schedule to remove utilities from the critical path
- Less than one MOT review comment per plan sheet for more than 21 miles of MOT design to include mainline, connectors, and two significant detours for overnight work
- No construction delays due to utility coordination/relocation



**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: <b>Route 7 Bridge Deck Replacement and Widening over DTR &amp; AAH</b> Location: <b>Fairfax County, VA</b>	Name: <b>Wagman Heavy Civil</b>	Name of Client.: <b>VDOT, NOVA District</b> Phone: <b>703-259-1940</b> Project Manager: <b>Arifur Rahman, P.E.</b> Phone: <b>703-259-1940</b> Email: <b>md.rahman@vdot.virginia.gov</b>	<b>06/2015</b>	<b>5/8/2018 (est.)</b>	<b>\$39,887</b>	<b>\$39,887</b>	<b>\$1,710</b>

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 with multiple phases, segments, elements, and/or contracts shall not be considered a single project. If a project listed includes multiple phases, segments, elements, and/or contracts, the SOQ may be rendered non-responsive. In any case, only the first phase, segment, element, and/or contract listed will be evaluated.

Similar Scope of Work	PROJECT SCOPE	RELEVANT PROJECT ELEMENTS TO I-66 WIDENING INSIDE THE BELTWAY PROJECT	EVIDENCE OF PERFORMANCE
<ul style="list-style-type: none"> <li>• Design-Build</li> <li>• Roadways</li> <li>• Bridges/Structures</li> <li>• Interchanges</li> <li>• Environmental</li> <li>• Geotechnical</li> <li>• Right-of-Way</li> <li>• Stormdrain and SWM</li> <li>• Pedestrian Accommodations</li> <li>• Retaining Walls</li> <li>• Traffic Control Devices</li> <li>• Signs, Sign Structures, and Foundations</li> <li>• Transportation Management Plan</li> <li>• Traffic Maintenance and Management</li> <li>• Utilities</li> <li>• Stakeholder Coordination</li> <li>• Public Involvement/Communications</li> <li>• QA/QC</li> <li>• Survey</li> <li>• Project Management and Coordination with other Transportation Projects Within the Vicinity of the Project Site</li> </ul>	<p>RDA provided professional engineering services from their Richmond office (supported by their Manassas office) serving as the Lead Designer for Bridge Deck Replacement and Widening of Route 7 over Dulles Toll Road (DTR) and Airport Access Highway (AAH) D-B project for VDOT. This \$40M D-B project will reconstruct and widen the bridge over the DTR, widen Route 7, replace and reconfigure signals through the interchange, reconstruct the ramps in all four quadrants, and provide continuous Shared Use Paths (SUPs) along Route 7 (east and westbound directions). The eastbound SUP will be an at-grade crossing in the southwest quadrant, attached to the Route 7 bridge, and will be a grade-separated crossing (prefab bridge) of the ramps in southeast quadrant. The westbound SUP will be a grade-separated crossing (cast-in-place serpentine bridge in combo with a prefab bridge) in the northeast quadrant, attached to the Route 7 bridge, and go under the ramps in the northwest quadrant via a series of tunnel arches. As the Lead Designer for the project, RDA's responsibilities include:</p> <ul style="list-style-type: none"> <li>• Interchange/Roadway Design</li> <li>• Overall Project Design Management &amp; QA/QC</li> <li>• Public Involvement</li> <li>• Utility Relocation Coordination &amp; Design</li> <li>• Right of Way Acquisition Services</li> <li>• Transportation Management Plan Design</li> <li>• Signage &amp; Marking Plan Design</li> <li>• Drainage Design (Stormwater Management &amp; BMP Design, Erosion Control Plans, Local Drainage Design, Culvert Design, Outfall Analysis)</li> <li>• Subconsultant Oversight &amp; Management (Structural Design and Geotechnical Analysis)</li> </ul>		
<p align="center"><b>Personnel on Project</b></p> <p>Mo Kim (RDA)      Nikhil Deshpande (RDA)  Sidney Thomas (RDA)      Tony Dean (RDA)  Adam Welschenbach (RDA)      John Myers (RDA)</p>			

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