JANUARY 31, 2018

ORIGINAL

STATEMENT OF QUALIFICATIONS

ROUTE 7 AND BATTLEFIELD PARKWAY INTERCHANGE

FROM: 0.75 MILES W. OF BATTLEFIELD PKWY ALONG RTE. 7
TO: 0.75 MILES E. OF BATTLEFIELD PKWY ALONG RTE. 7
FROM: 0.25 MILES S. OF RTE. 7 ALONG BATTLEFIELD PKWY
TO: 0.40 MILES N. OF RTE. 7 ALONG BATTLEFIELD PKWY

TOWN OF LEESBURG, VIRGINIA

STATE PROJECT NO.: 0007-253-009, P101, R201, C501, B601
FEDERAL PROJECT NO.: STP-5A01 (704)

CONTRACT ID NUMBER: C00106573DB101

PREPARED FOR:

VDOT

SUBMITTED BY:

LANE

3.2 LETTER OF SUBMITTAL

LANE

January 31, 2018

Mr. Stephen D. Kindy, P.E.
Alternative Project Delivery Division
Virginia Department of Transportation
1401 East Broad Street
Richmond, Virginia 23219

RE: Route 7 and Battlefield Parkway Interchange
State Project No.: 0007-253-009, P101, R201, C501, B601
Federal Project No.: STP-5A01 (704)
Contract ID Number: C00106573DB101

Dear Mr. Kindy:

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 a nationally ranked contractor 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 (D-B) method (nationally ranked as one of the Top Design-Build Firm by *Engineering News-Record)* LANE has constructed more than 80 D-B projects worth over $4B during the past 15 years. LANE's teaming and leadership experience enables us to deliver the innovative and technically sound results that VDOT and Virginia residents expect and deserve.

LANE is the Offeror and will be the overall authority on the project as well as the Lead Contractor. We have teamed with Johnson, Mirmiran, & Thompson, Inc. (JMT) as the Lead Designer. Together, we provide VDOT with a reputable team capable of completing a project of this size and scope on time and within budget.

LANE and JMT, 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 Route 7 and Battlefield Parkway Interchange 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

3.2.3 Offeror's Principal Officer Information: Mr. Richard A. McDonough is a Principal Officer of LANE.

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: **Johnson, Mirmiran, & Thompson, Inc.** JMT will serve as the lead design firm responsible for the overall design of this Project under contract to LANE.

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

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

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

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

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

3.2.11 DBE Statement: LANE supports the Disadvantaged Business Enterprise (DBE) program and is committed to meeting the **13%** goal for the design and construction of this project utilizing Virginia certified DBE companies.

As evidenced by our proven performance, our Team will deliver this project safely, on time, and within budget. We appreciate the opportunity to present our qualifications and look forward to working with VDOT on this important project.

Respectfully submitted,

Ali Alkouraishi
Pursuit Manager
The Lane Construction Corporation

3.3 OFFEROR'S TEAM STRUCTURE

3.3 | OFFEROR'S TEAM STRUCTURE

We have carefully chosen a group of the most highly skilled team members, both firms and individuals, to create a team structure that advantageously utilizes the Design-Build (D-B) process and capitalizes on the strongest attributes of each Team member's respective capabilities. LANE's role will include managing the project, supervising construction, and self-performing the major work elements. LANE has selected JMT as the Lead Designer. Together, we are the foundation of the LANE Team. Both firms have main or regional offices in the local vicinity, allowing our Team to best serve the needs of this Project and the local community.

The Lane Construction Corporation (LANE) will serve as Lead Contractor of the D-B Team for the Route 7 and Battlefield Parkway Interchange project. LANE was recognized nationally by *Engineering News-Record (ENR)* as the #1 Highway Contractor in the United States (2014-2016) and currently ranks as the 7th Top Transportation Contractor. Our proven heavy civil experience in paving, bridge and roadway construction and more than 80 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.

Johnson, Mirmiran, & Thompson, Inc. (JMT) will serve as the Lead Designer and will provide overall project management for all design activities. JMT has a documented reputation for developing innovative solutions for projects that save time, reduce cost, and deliver the best value to the owner. Founded in 1971, JMT is an employee-owned A/E firm offering a full array of consulting and technology services for transportation infrastructure projects throughout the U.S. JMT's high ENR Ranking of *#4 – Top Design Firms in the Mid-Atlantic* and *#11 – Top 25 Highways and Bridge Firms* is a testament to their proven track record of successful and innovative roadway design and D-B projects. JMT's notable D-B projects include Fairfax County Parkway Extension in Springfield, VA, Odd Fellows Road Interchange at US Route 29/460 in Lynchburg, VA, and the Diverging Diamond Interchange at State Route 1 and State Route 72 in New Castle County, DE. JMT is VDOT's engineering representative for the Route 7 (Leesburg Pike) D-B Corridor Improvements Project. JMT has been committed to serving Virginia for nearly 30 years through offices located in Herndon, Virginia Beach, and Richmond.

Subconsultants

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

- CES Consulting, LLC (Quality Assurance Manager), Certified DBE
- DMY Engineering Consultants, Inc. (Geotechnical Drilling and QC Lab), Certified DBE
- Dulles Geotechnical & Materials Testing Services (QA Lab), Certified DBE
- Endesco, Inc. (Stormwater Management and Erosion/Sediment Design), Certified DBE
- Harris, Miller, Miller & Hanson Inc. (Noise Studies), Certified DBE

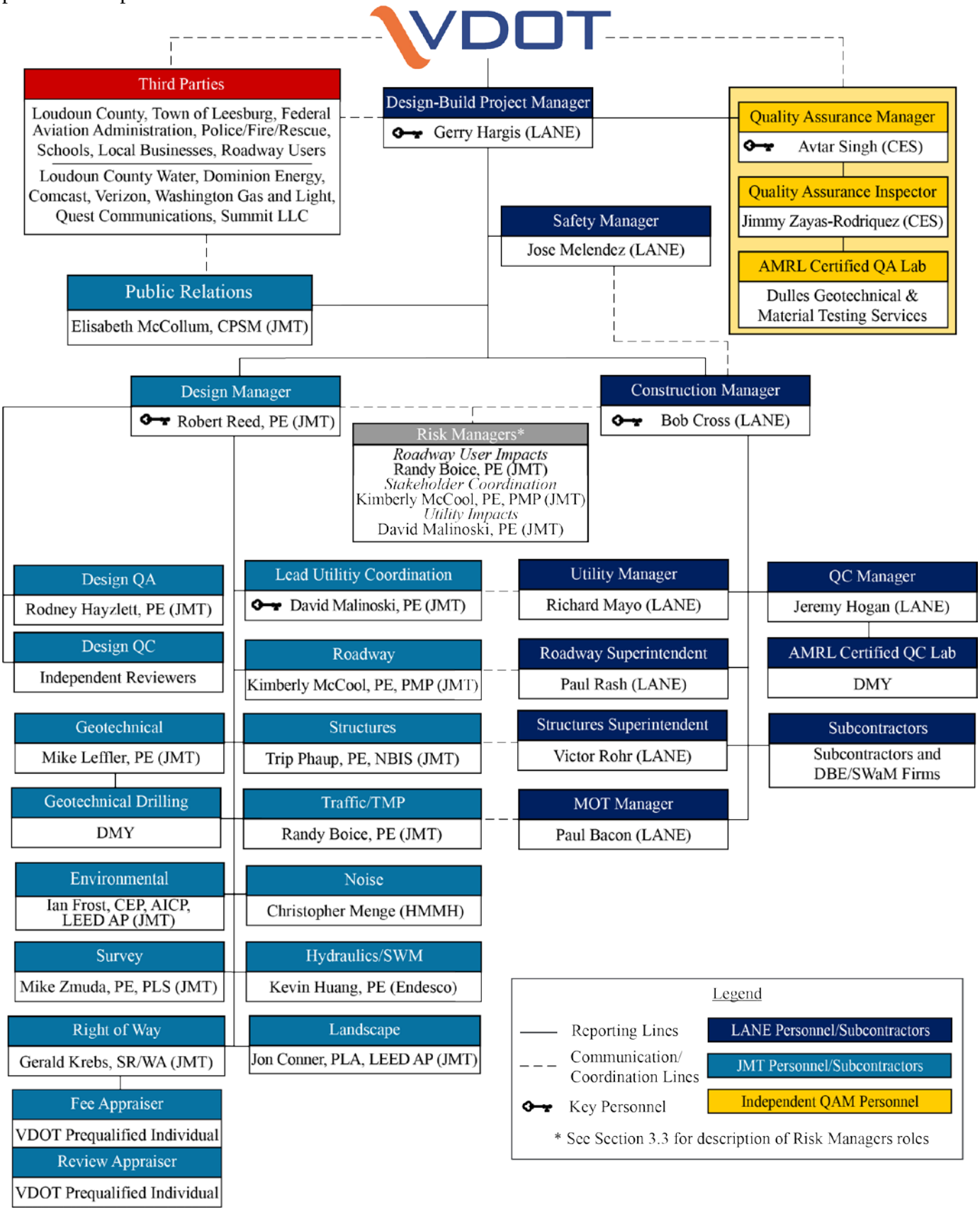
3.3.1 Qualifications of Key Personnel

All proposed Key Personnel have noteworthy experience on transportation projects similar to the roles they will serve on the Route 7 and Battlefield Parkway Interchange project. Information regarding their experience can be found in Attachment 3.3.1 in the Appendix. The Key Personnel will be employed full time by their respective firms as shown below on the Organization Chart.

Name	Position	Company
Gerry Hargis	**Design Build Project Manager**	**LANE**
Avtar Singh, PE	**Quality Assurance Manager**	**CES**
Robert Reed, PE	**Design Manager**	**JMT**
Bob Cross	**Construction Manager**	**LANE**
David Malinoski, PE	**Lead Utility Coordination Manager**	**JMT**

3.3.2 Organizational Chart

The LANE Team's organization has a straight-forward chain of command, with individual tasks, responsibilities, and functional relationships clearly identified that will remain on the Offeror's team for the duration of the procurement process and for the duration of the D-B Contract.



Reporting Relationships of Key Personnel

Design Build Project Manager (DBPM), Mr. Gerry Hargis (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 LANE Team to ensure that the design complies with the owner's specifications. Mr. Hargis' management from design through construction will include weekly design and construction meetings to coordinate how the LANE 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. Hargis brings over 40 years of experience in the construction industry. Mr. Hargis has extensive experience on a wide variety of highway, bridge and roadway D-B projects throughout Virginia and the Carolinas. He has managed design coordination, constructability, project management, utility relocation, stakeholder coordination, acquiring ROW and owner coordination as an Area Manager.

Quality Assurance Manager (QAM), Mr. Avtar Singh, PE, (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. Singh and the DBPM. Mr. Singh will keep VDOT informed on the status of quality of construction and issues/solutions through weekly reports and progress meetings. As QAM, Mr. Singh holds the authority to suspend work if quality issues warrant. Quality Assurance Inspector, Mr. Jimmy Zayas-Rodriquez, *will report directly to the QAM*. Dulles Geotechnical & Material Testing Services *will report to Mr. Singh* and will perform QA testing.

☑ **Added Value:** Mr. Singh has worked extensively in the NOVA District area and is thoroughly familiar with VDOT Minimum QA/QC Requirements for D-B projects. Most recently, Mr. Singh served as the QAM on LANE's very successful Route 29 Solutions D-B project.

Design Manager, Mr. Robert Reed, PE (JMT) *will report directly to the DBPM.* Mr. Reed 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. Reed. 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. Reed is also responsible for establishing oversight of the QA/QC program for each design discipline of the project. He will be assisted by Mr. Rodney Hayzlett, PE, who will provide an independent design QA audit. The design QC will be performed by qualified independent staff for each discipline.

☑ **Added Value:** Mr. Reed has led the design of many significant projects in and about The NOVA District area including, Jones Branch Connector (included in Work Histories), Fairfax County Parkway Widening, and Route 7 Widening from Leesburg to Route 28 including design of the Route 7/Route 15 Interchange plus D-B projects throughout the Commonwealth.

Construction Manager, Mr. Bob Cross, (LANE) *will report directly to the DBPM.* His daily duties include: safety, coordination of all project personnel and construction activities including subcontractors, and execution of the construction QC program. He holds ultimate responsibility for managing the project's schedule with 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. Cross will be available prior to the start of the Route 7 and Battlefield Parkway Interchange construction. Mr. Cross holds a Virginia Department of Environmental Quality (DEQ) Responsible Land Disturber (RLD) Certification and a VDOT Erosion and Sediment Control Contractor Certification (ESCCC).

☑ **Added Value:** Mr. Cross served as a Construction Manager on numerous roadway widening and intersection projects in Virginia. He recently served as the Construction Manager on the I-66/Route 15 Interchange D-B project and the I-495 Express Lanes D-B project (included in Work Histories).

Lead Utility Coordination Manager, Mr. Dave Malinoski, PE (JMT) *will report directly to the Design Manager*. Mr. Malinoski coordinates all utility relocations. He verifies conflicts; determines cost responsibilities; conducts utility field inspections; coordinates utility relocation design; reviews and recommends approval of utility relocation plans and estimates, and ensures inspection of utility relocation construction and perform other duties as required. Additionally, Mr. Malinoski reviews utility relocation designs prepared by a PE for contract utility relocations, and verifies and recommends modifications, as needed. He ensures continuity of service between design and construction.

☑ **Added Value:** Mr. Malinoski has 36 years of experience in the management and design of utilities for transportation and site improvement projects. He has provided Utility Field Inspection services that include conflict analysis, cost estimates and prorates, scheduling and in-plan design deliverables for water, sewer, electric and telecommunications facilities. Mr. Malinoski has provided these services for interstate, arterial and secondary roadways constructed as D-B and design-bid-build projects including the HOT lanes construction in Northern Virginia. His experience includes serving as the Utility Project Manager for the 495 Express Lanes Utility Relocation project (included in Work Histories) as well as the Utility Engineer for I-95/US Route 1 Interchange at Woodrow Wilson Bridge Utility Relocation in Alexandria, VA.

Narrative of Other Functional Relationships

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

Stakeholder Coordination & Roadway Design: Kimberly McCool, PE, PMP (JMT). Ms. McCool has over 24 years of experience in transportation engineering. Her experience spans both the public and private sector giving her a unique perspective on project delivery. Her experience includes nine years at VDOT in the Northern Virginia District as a project manager integrating the needs of multiple stakeholders and technical resources into project design. She successfully managed the Route 50 Widening D-B and Route 606 Widening projects in Loudoun County. In this role, she coordinated with numerous stakeholder groups including the Metropolitan Washington Airport Authority, Dulles South Business Alliance, and private businesses and developers with access concerns. Ms. McCool began her career as a highway designer and is thoroughly familiar with FHWA and VDOT standards and practices. She uses common sense engineering to incorporate the needs of technical disciplines and stakeholders to deliver a successful project.

ROW: Gerald Krebs, SR/WA (JMT). Mr. Krebs has 41 years of experience in the acquisition of real estate for governmental agencies, and serves as a Senior Real Estate Specialist on multiple JMT contracts providing property management, relocations and acquisitions, as well as appraisal review and negotiations. He has worked on projects involving federal grants and is an expert on the Real Estate provisions of the Uniform Act. Mr. Krebs has a Senior Member designation granted by the International Right of Way Association (IRWA). He has worked on several federal, local and state contracts providing right of way acquisition services including; Mark Center Short and Mid-Term Road Improvements, D-B, Alexandria, VA, FHWA, Real Estate Acquisition Services, Howard County, MD and Property Acquisition and Relocation Services, Statewide, MD, MTA.

QA Design: Rodney Hayzlett, PE (JMT). Mr. Hayzlett has 24 years of experience managing and coordinating the major transportation disciplines of roadway, water resources, and traffic engineering design. He has been instrumental in the successful management and design of many VDOT, Federal, county and municipal transportation projects including D-B procurements. Project responsibilities include signing and sealing plans for ROW acquisition and construction; management of design sub-consultants; internal coordination between discipline leaders; implementation and monitoring of the design QA/QC process; and coordination with construction staff and QA/QC staff. Relevant experience includes: Highway DM for Fairfax County Parkway Phases I/II & IV D-B and PM for Route 7 Corridor Improvement project.

Traffic/TMP: Randy Boice, PE (JMT). Mr. Boice has 27 years of experience in traffic engineering, traffic signal system design, TMP analysis/design, and the design of communications systems for Intelligent Transportation Services

(ITS) infrastructure. He has been Traffic/ITS Manager on high profile projects in northern Virginia including Route 7, Fairfax County Parkway D-B, Mark Center D-B, and the Jones Branch Connector in Tysons.

Structural Engineer: Trip Phaup, PE, NBIS (JMT). Mr. Phaup has 27 yrs. experience in the analysis, design, and preparation of preliminary and final plans, special provisions, and construction cost estimates for a variety of highway, railway, and miscellaneous structures. His experience includes serving as the Lead Structural Engineer for the Jones Branch Connector over the Capital Beltway in Fairfax County, the Mountain Road (Route 600) Improvements for Prince William County, as well as the Structural Project Manager for the Route 608 Christian Creek and Augusta Farms/Ramsey Road Intersection. His experience also includes serving as the Structural QA/QC Engineer for the Fairfax County Parkway Phases I/II & IV D-B project.

Environmental Manager, Ian Frost, CEP, AICP, LEED AP (JMT). Experienced in NEPA documents, environmental permitting and environmental compliance. Mr. Frost focuses on environmental compliance, water resource planning, environmental and stormwater permitting, water quality, and NEPA. Extensive experience as environmental lead for D-B projects in Virginia including, Fairfax County Parkway Extension D-B and Route 3 Widening D-B. Formerly a VDOT environmental permit manager and DEQ program manager, he has provided expert testimony on reauthorization of Clean Water Act and served as an expert witness involving NEPA and Section 404 Permits.

Risk Managers

The LANE Team is committed to developing innovative solutions for projects that not only save time, but reduce cost and deliver the best value to the owner, with minimal impacts to stakeholders. To achieve these goals, we have assigned Risk Managers with the specific skills and experience needed to ensure that to each of the risks as identified in **Section 3.5** are managed effectively. The Risk Managers report the DM and CM for the duration of the Project. The Risk Managers are responsible for monitoring their respective risk and alerting the DM and CM of any issues before they affect the Project. The Risk Managers are proactive in addressing issues and developing risk mitigation strategies.

Identified Risk Managers Experience
Roadway User Impacts: Randy Boice, PE (JMT)
Mr. Boice has been intimately involved with the needs of road users in JMT's current Route 7 Widening Project. That project was faced with considerable public opposition against adding dual left-turn lanes from eastbound Route 7 to eastbound Georgetown Pike in Phase I. **JMT simulated acceptable alternatives which maintained the existing ROW constraints while also providing the operating levels of service expected from the improvements.** After many meetings with the road users, an agreement was reached for the intersection configuration and operations which was acceptable to all the interested parties.
Stakeholder Coordination: Kimberly McCool, PE, PMP (JMT)
Ms. McCool's experience includes nine years at VDOT in the Northern Virginia District as a project manager integrating the needs of multiple stakeholders and technical resources into project design. She successfully managed the D-B Route 50 Widening and Route 606 Widening projects in Loudoun County. In this role, she coordinated with numerous stakeholder groups including the Metropolitan Washington Airport Authority, Dulles South Business Alliance, and private businesses and developers with access concerns. She proactively addressed access concerns from the businesses, including meeting with owners on site to explain project impacts. This included coordinating and meeting with the Pleasant Valley United Methodist Church to address their concerns with the closing of the median break in front of their property.
Utility Impacts: Dave Malinoski (JMT)
Mr. Malinoski has provided Utility Field Inspection and utility design services over the last 13 years for VDOT and municipal projects. Tasks included conflict analysis, cost estimates and prorates, scheduling and in-plan design deliverables for water, sewer, electric and telecommunications facilities.

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 LANE 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
RFI process to clarify details of the construction work	Eliminates mistakes and project delays
Providing design engineers on-site, as needed	Provides assistance in clarification of design requirements and responding to field inquiries
Providing support due to field conditions requiring design changes	Ensures consistency of design changes with intent of original design
Compiling final as-built drawings	Provides correlation between original design, design changes, and as-built construction

3.4 EXPERIENCE OF OFFEROR'S TEAM

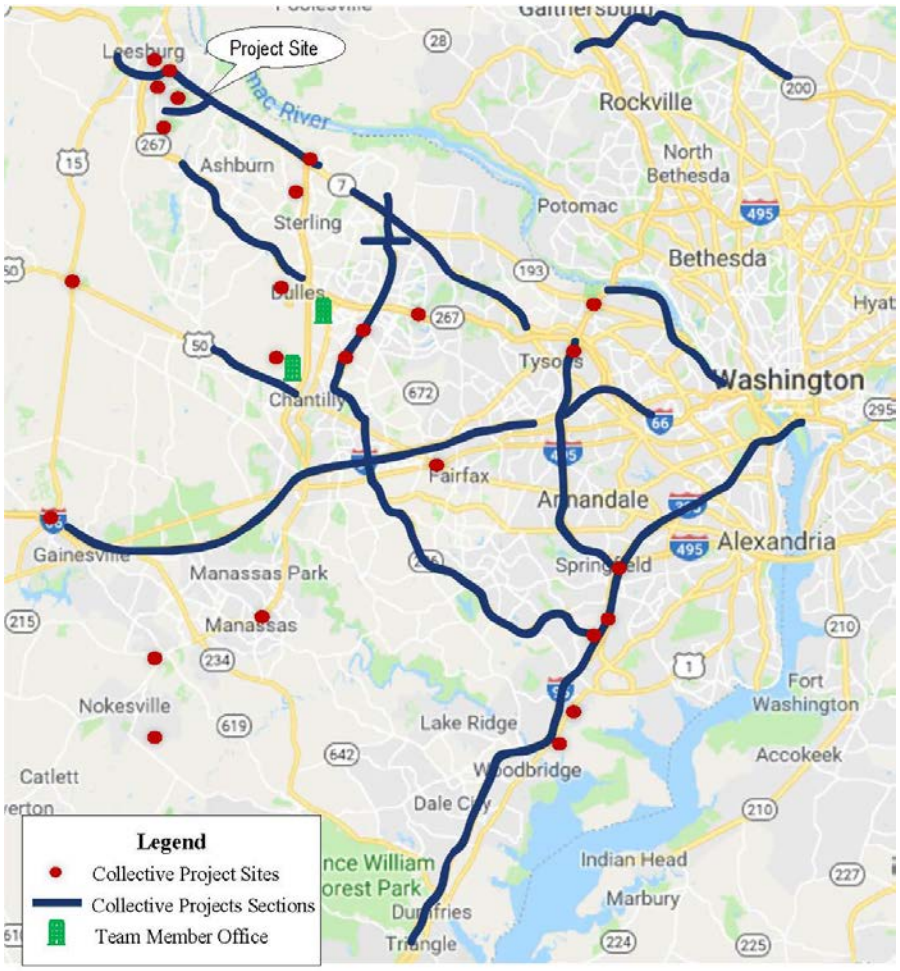
3.4 | EXPERIENCE OF OFFEROR'S S TEAM

As previsouly mentioned, both LANE and JMT are among the nation's top ranked firms in their respective disciplines. Together and individually, we have designed, built and maintained some of our country's most important infrastructure. Each firm has achieved a widely recognized level of success by paying specific attention to detail in controlling, managing, and executing their work. Bringing the LANE Team together for the Route 7 and Battlefield Parkway Interchange project unifies the abilities of each to perform in a complimentary manner based on our past performance together. The blend of similar projects that we have worked on individually and/or collectively in the region and with the agencies involved confirms our qualifications to successfully deliver all elements of the Route 7 and Battlefield Parkway Interchange project.

Adding to this, LANE has a well-known commitment to VDOT and the Commonwealth. We have maintained a regional office in Northern Virginia for over 40 years; employ a full-time workforce in excess of 900 craftsmen in Northern Virginia alone; and own and operate asphalt plants nearby in Loudoun County and Chantilly.

Similarly, JMT has a strong relationship with VDOT. They routinely employ a proactive approach to D-B projects providing an interactive design process of collaboration with the contractor and VDOT to assure engineering excellence. JMT is currently working with VDOT on the Route 7 Corridor Improvements where they have developed the RFP plans and are supporting VDOT as an owner's representative through project construction. Located just 12 miles to the east on the same roadway, this Project included the investigation of various intersection alternatives, stakeholder coordination, and utility coordination.

Experience Working in Northern Virginia



Both LANE and JMT have extensive experience working in Northern Virginia. The map to the left highlights some of our local projects sites.

3.4.1 Work History Forms

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

3.5 PROJECT RISKS

3.5 | PROJECT RISKS

The Lane Team has reviewed the preliminary plans in combination with several site visits to identify the critical elements of work for the Route 7 and Battlefield Parkway Interchange project and to determine our three most relevant and critical project risks. During our evaluation, we considered numerous risks to the project including: geotechnical, utilities, bridge/structures, existing pavement condition, maintenance of traffic (MOT), agency/stakeholder coordination, public relations, environmental and Stormwater management (SWM), and associated right-of-way (ROW) acquisitions. We concluded that **Roadway User Impacts, Stakeholder Coordination, and Utility Impacts** are the three most critical risks that must be mitigated to ensure the success of the project. The LANE Team has assigned risk managers with responsibility for proactively monitoring each risk and alerting the DM and CM of any issues before they affect the project. The risk manager program will greatly reduce the likelihood of VDOT and/or other agencies to need to step in and become involved in project issues.

Risk No. 1 –Roadway User Impacts

Risk Identification: Traffic along the Route 7 corridor is composed of two main types of roadway users; commuters and local access. Travel by both types of users will have to change due to the proposed project. To oversee this risk, the LANE Team has assigned a highly qualified Risk Manager that will ensure the successful delivery of the project: Randy Boice, PE. Mr. Boice will be responsible for managing this risk for the duration of the project. He has acquired a significant experience along the Route 7 corridor as part of past work in Loudoun and Fairfax County for VDOT and with assignments for Loudoun County DTCI.

Route 7 is a major corridor from Winchester, through Leesburg and Tysons, to Alexandria. This segment of the Route 7 corridor carries approximately 74,000 vehicles per day (VPD) based on VDOT's 2016 ADT Summary. Battlefield Parkway carries 11,000 VPD south of Route 7 and 14,000 VPD north of Route 7. There is robust development activity along the Route 15 corridor and to the west of Leesburg that will generate additional traffic through this area. Traffic is expected to grow as the area continues to develop; when the extension of Battlefield Parkway to US 15 is completed next year; in effect, the roadway becomes a southern bypass for the Town of Leesburg.

Local access to areas immediately adjacent to the project could be impacted during construction. Key connections such as Russell Road and the proposed access roads north of Route 7 must be made available in time to divert access routes during construction and to accommodate the long-term changes in traffic patterns created by the new interchange. The background material provided in the RFQ demonstrates the need for access due to the recent opening of the Lowes Home Improvement Center in the southeast quadrant and the planned development of the vacant parcel in the southwest quadrant of the interchange. With this amount of traffic traveling through the proposed interchange area and the limited area available to complete the work, it will be critical to provide efficient and effective MOT plans that minimizes the projects impact on the traveling public.

The conflicting priorities of constructing a major interchange while maintaining the access for through and local traffic makes minimizing the impact to the traveling public a critical risk. Add to this the fact that there is limited right-of-way (ROW) available for the project to construct temporary detour roadways and complete the permanent work, let alone staging areas for the equipment and material storage.

The LANE Team will ensure safety through the construction zone while minimizing impacts to the motorized and non-motorized traveling public, optimizing traffic operations, maximizing the ROW that is available for the project, and maintaining access to businesses and agencies. A multi-phase MOT plan will be developed that will provide for traffic to be safely conveyed through the work zones along Route 7, Battlefield Parkway and the surrounding roadways while ensuring access to businesses, schools, and residents. These diverse traffic issues will be studied as part of our Traffic Management Plan (TMP) development in accordance with VDOT's IIM 241 on Work Zone Safety and Mobility. The development of this document will enhance our understanding of the motorized and non-motorized traffic patterns so the TMP can be developed to balance the needs of the construction schedule with the safe and timely conveyance of the public through the construction zone.

Why *Road User Impacts* are Critical and the Impacts to the Project: Mitigating and minimizing impacts to the road users are core values and goals that we share with VDOT on all projects. Maintaining these goals will be challenging in this project workzone. The LANE Team's extensive experience and success in this Route 7 corridor developing and implementing safe, properly managed, planned, designed, and scheduled work operations affords us the knowledge base to reduce the risks and limits exposure and adverse impacts to the public.

Route 7: Traffic volumes along Route 7 are heaviest eastbound in the morning and westbound in the evening. Of particular concern are the maintenance of traffic at Cardinal Park Drive and the Battlefield Parkway intersections. Also, access to the Amish Outlet, Backyard Products, and Meadows Farms will need to be maintained until the proposed access road for these parcels is constructed and operational to the public.

Battlefield Parkway: Maintaining business access points, including the proposed Russell Road along Battlefield Parkway is critical to the continued viability of the businesses and agencies in the project area, such as the FAA Washington Air Route Traffic Control Center. Access to areas north of Route 7 is equally important**.**

Risk Mitigation Strategy and Team Experience that will Ensure Successful Delivery of the Project: The ATC process offers the opportunity to refine the interchange concept to reduce impacts to the traveling public and maintain access to local businesses and residences. Recently, the LANE Team successfully addressed similar issues for our project at I-66/Route 15 Interchange; a revised interchange configuration solved many of issues related to impacts to road users.

LANE's I-66/ Route 15 Interchange project changed the design of the project to better serve the public resulting in limiting impacts to the traveling public during construction.

The LANE Team will implement strategies in our MOT plans and the project TMP that are feasible and most importantly, that provide safe work zones for construction personnel and the traveling public. The LANE Team will assign locally experienced, knowledgeable design staff and a **dedicated risk manager** that will work with the Lane's construction staff and VDOT through over the shoulder reviews to ensure the plans are constructible and safe.

Access to adjacent properties and MOT will be addressed as part of concept development; the ATC process offers the opportunity to refine the current preliminary design in order to minimize impacts to road users and reduce the duration of potential disruptions. Early construction activities will be scheduled and phased in a sequence that provides early improvements to the flow of traffic through the project.

The MOT plans and the overall TMP will be developed to allow work to progress in concurrent areas where possible. The plan will be founded on solid traffic analysis for each phase while confirming that access and interim drainage/SWM are accommodated. The LANE Team will also use their knowledge of the surrounding roadway network to implement travel demand management strategies such as encouraging the use of the Dulles Greenway, for which use is free within the Town limits, to divert traffic around the work area. In the past, JMT used innovative approaches to traffic diversions to help construct the Fairfax County Parkway connection in Newington, VA and to construct the Mark Center improvements in Alexandria, VA. Both projects included access challenges to businesses and agencies that were successfully mitigated.

Role of VDOT and Other Agencies: The LANE Team will rely on VDOT to provide oversight and approvals of the TMP process and to post notifications of construction activities on its' website provided by the LANE Team through the TMP.

Risk No. 2 –Stakeholder Coordination

Risk Identification: Many stakeholders are involved in the Route 7 and Battlefield Parkway Interchange project, including the Town of Leesburg, Loudoun County Government/Public Schools, Northern Virginia Regional Park Authority (NVRPA), local police/fire/rescue, public agencies, private businesses, and large development projects, as well as the road users. Since incorporating the needs of all stakeholders is essential for

the success of this project, we have deemed it as a critical risk. The risk lies in ensuring all relevant information is provided to the appropriate stakeholders in a timely and efficient manner and that their input is received and passed back to the LANE Team members for incorporation into the project work plan. The work plan will include key contacts, availability, and schedule requirements. To oversee this delicate process the LANE Team has assigned a uniquely qualified Risk Manager that will ensure the successful delivery of the project: Kimberly McCool, PE, PMP who will closely manage the work plan and the stakeholder coordination to ensure project objectives are met. Ms. McCool has experience with stakeholder coordination in Loudoun County on the Route 50 Widening and Route 606 Widening projects. She will be supported by Elisabeth McCollum, CPSM, a public involvement specialist.

Why Stakeholder Coordination is Critical and the Impacts to the Project: Stakeholder involvement is crucial to successfully achieve project objectives and deliver a high quality, rapid construction, and minimally disruptive project. The potential impact of not adequately coordinating with stakeholders includes significant schedule delays and the need for re-designing project elements. The needs of the stakeholders must be communicated with the LANE Team to ensure that they are incorporated into the final project. The following groups of stakeholders have been identified for the Route 7 and Battlefield Parkway Interchange project:

Public Agencies: There are public agencies from all levels involved in this project. VDOT has maintenance responsibility for Route 7, while the Town of Leesburg maintains Battlefield Parkway. The Federal Aviation Administration (FAA) has property abutting the project, and the access to their facility will be modified. Loudoun County and the NVRVP are expected to be project stakeholders. The needs of emergency services such as police and fire, and other services such as Loudoun County Transit and Loudoun County Public Schools including school buses with routes through the project must be considered.

Property Owners: Three private businesses along the north side of Route 7 will have their existing access relocated. The location of the new access points has not been determined and will require coordination with these businesses as well as any other properties impacted. One impacted property is Tolbert Elementary School which includes an existing proffer to provide a future access road to Potomac Station Drive for the businesses east of Battlefield Parkway.

All the businesses and properties accessing Route 7 from Cardinal Park Drive will be impacted. Included among those is 2 car dealerships, the FAA and the VDOT maintenance office on Lawson Road. The modification of the Cardinal Park Drive intersection will require these facilities to access Route 7 from Battlefield Parkway. The different types of vehicles used in the VDOT maintenance facility, as well as the car dealerships must be considered in the project design.

The project may also include the removal of the signal and closure of the crossover at the Potomac Station shopping center. The impacts of this decision must be effectively communicated with the shopping center, VDOT and the Town of Leesburg to facilitate an informed decision on the closure.

Private Developers: The Leegate development at the southwest corner of the proposed interchange and the Lowes development at the southeast corner of the interchange must be considered and accommodated during project design. These developments are in different stages, however any changes to Route 7 or Battlefield Parkway that affect the current or future development potential must be avoided or minimized.

Road Users: The users of the roadway are always essential stakeholders. Keeping the public informed during design and construction is key; this includes the bicycle and pedestrian community. Battlefield Parkway provides a link between residences, businesses, and the W&OD Trail for Leesburg residents.

Risk Mitigation Strategy and Team Experience that will Ensure Successful Delivery of the Project: The LANE Team has extensive experience in coordinating with stakeholders on nearly all of our projects. We have learned that this process must begin as early as possible. Early meetings ensure that a comprehensive list of stakeholders is developed and that their needs can be accommodated as efficiently as possible in the completed project. Some stakeholders are concerned with how the design of the project will affect their property; others are concerned with construction impacts and time of day restrictions. Communication with stakeholders is expected to take various forms, including public forums, one on ones with single property owners, social and print media. The LANE Team will coordinate initial meetings with stakeholders to request input, open the lines of communication, and identify their concerns soon after Notice to Proceed. This information will be used to develop the required project work plan. The meetings will be well documented, and we will ensure that the information is available and understood by all team members. The LANE Team has assigned Kimberly McCool, PE, PMP to manage this risk. She will be responsible for coordinating with the project stakeholders and ensuring that this information is transmitted between the stakeholders and the LANE Team. She has experience with Loudoun County and VDOT projects and can effectively communicate the project impacts and design decisions. She has met with business owners on past projects including the Route 50 Widening to explain impacts to their properties and any changes to access. She is also experienced using best practices and common-sense engineering to facilitate project solutions.

On LANE's I-495 Express Lanes project, over 1,000 public outreach meetings were conducted and, in coordination with VDOT, the Team kept the public involved through various media methods: project websites, routine newsletters, and brochure mailings to residents and businesses.

Role of VDOT and Other Agencies: The LANE Team will develop a project workplan to include all aspects of stakeholder coordination. This will include VDOT's required level of involvement with each stakeholder. The workplan will be provided to VDOT for concurrence. It is understood that VDOT and the Town will work with the impacted businesses as part of the design and ROW process. The LANE Team will support this process and provide necessary information and meeting facilitation as required.

Risk No. 3 – Utility Impacts

Risk Identification: The VDOT preliminary plans dated November 2017 identify seven (7) utility owners with facilities within the project footprint; **Loudoun County Water** (LCW) including sanitary sewers; **Dominion Energy** (DE), with transmission, distribution, and lighting; **Comcast**, **Verizon**, **Quest Communications**, **Summit LLC** with communications and CATV facilities; and **Washington Gas and Light** (WGL). In addition, the existing roadways are signalized and lighted with VDOT-owned communications and power facilities. The criticality of site utilities is made even more complicated by the proximity of the LCW water treatment plant and the communications required for the FAA control center. Historically speaking and from our own Team's experience, when working on an interchange and approaches involving a major collector road such as Route 7 where major utilities are present, we know there exists a high potential for negative impacts to utility operations and the construction schedule to occur if this risk is not planned for and managed properly.

To oversee this risk, the LANE Team has assigned a highly qualified Risk Manager that will ensure the successful delivery of the project: David Malinoski, PE. Mr. Malinoski will be responsible for managing this risk for the duration of the project. He has acquired a significant amount of experience by his coordination efforts for the I-495 HOT Lanes project as well as other D-B projects across the Commonwealth.

Our preliminary research has identified that the listed owners have utilities that may be impacted by the proposed project including: multiple gravity sanitary sewers (8-inch to 12-inch) and an 8-inch sanitary force main, DE transmission lines, multiple known fiber optic (FO) communications lines (and the potential for unknown FO lines).

Adding to the risk, we note that the VDOT preliminary plans do not show the locations of water lines – critical watermains may be associated with the water treatment plant. Disruptions to the large sanitary mains, watermains, communications to FAA, and DE transmission lines could have immeasurable negative consequences for the utility owner and customers. Impacts to these critical utilities can in turn cause negative consequences for other areas of the project such as project schedule, budget, and public perception.

Why Utility Impacts are Critical and the Impacts to the Project: Route 7 serves as a key corridor for communications serving the FAA and other nationally-critical facilities located in western Loudoun County; secure "black" communications facilities can be expected; disruptions cannot occur. Careful planning during design will be needed to avoid conflicts. Close coordination and planning will be needed to resolve constructability issues.

LANE has extensive utility experience with similar issues and solutions from working on our VDOT I-66 / Route 15 Interchange and the Route 29 Solutions projects.

Watermains serving the water treatment plant can be expected but their locations are not confirmed/known. The pipes serving the water treatment plant are critical facilities for the Town of Leesburg and surrounding areas of Loudoun County. In addition, some older LCW pipes are concrete cylinder pipes which are susceptible to breakage if close to construction vibration. When encountered on similar projects (Belmont Ridge and Pacific Boulevard) concrete cylinder pipes were carefully protected or removed.

The sanitary sewer lines are located near the intersection of Battlefield Boulevard and Route 7 and will be impacted by bridge construction and high fills. It is very likely that these sewers will need to be relocated as part of the project.

A WGL gas main runs in the median of Route 7. With the current interchange concept, the foundations for the new bridge would be in close proximity to the gas line. At the very least, the gas main will affect locations and types of foundations for the bridge and could impact the configuration for the interchange. These same issues were resolved by JMT on our Jones Branch Connector project which had to avoid and work in close proximity to an existing 30-inch gas main in Tysons.

The DE overhead transmission lines are located just south of Route 7. There is a potential for direct impacts to a tower but at the very least, the wire profile will be a constraint on the height of the approach roadway. During construction, their proximity to the worksite will require precise crane positioning in order to maintain a safe working distance to avoid electrical arching.

ROW must be cleared and utilities must be relocated prior to starting construction in many areas of the project relocations and replacements for utilities could easily reveal themselves to be on the critical path of the project schedule and not under absolute control of the LANE Team. Many of the decisions regarding relocation and/or replacement will be made by the utility owners whose obligations to the project may at times be in conflict with other projects in the area placing their attention to this project beyond the control of the LANE Team and VDOT.

Risk Mitigation Strategy and Team Experience that will Ensure Successful Delivery of the Project: The LANE Team will meet early immediately with all affected utility owners in order to plan and develop a clear understanding of how the project and utility owner goals align. This Utility Risk will be managed by our Utility Manager, Mr. Dave Malinoski, who possesses extensive utility relocation and mitigation experience including construction of the I-495 HOT lanes and other Northern Virginia projects. Early coordination will allow the LANE Team to move forward with their tasks to reduce the utility impacts following the steps which are broadly outlined below:

- Investigate alternative roadway designs to **avoid conflicts** or minimize impacts to existing utilities. The locations of drainage systems and foundations can be shifted to avoid conflicts. The roadway profile beneath the DE transmission lines will be carefully studied; our design staff previously resolved similar issues with this DE facility as part of projects along the Leesburg Bypass and at Pacific Blvd.
- Conduct **early coordination** with all utility owners including completion of UT9 Forms; define ROW, "prior rights", and establish potential relocation/reconstruction expectations and costs. At this time the required Utility Field Inspection meeting would also occur.
- Locate and designate **precise locations** of all potentially impacted existing utilities including service feeds by augmenting any previously provided location data utilizing JMT's in-house Subsurface Utility Engineering (SUE) capabilities to generate supplemental utility location plans.
- Determine appropriate **new locations and alignments** for both underground and aerial facilities to accommodate the planned project.
- Investigate a **common utility duct bank** for all underground communication and electrical utilities to condense utility locations; this mitigation worked well on a recently-completed project by JMT along the Route 1 corridor in Prince William County.
- **Continuous coordination** with utility owners throughout the D-B process exploring methods to maintain service, control costs, and improve and expedite utility related design and construction.
- At all times, The LANE Team will adhere to the Utility Manual of Instructions; Utility Relocation Policies & Procedures Manual (Utility Manual).

Regarding the possible relocation of utilities to track the road alignment, the LANE Team will undertake an extensive test hole locating program using a combination of LANE equipment and JMT vacuum test hole trucks. This data will be analyzed by our designer JMT to allow for optimum roadway configurations, drainage design, and utility profiles. This data will also be provided to all utility companies for their use. The LANE Team plans to partner with all utility companies as well as the FAA control center in order to avoid disruptions, expedite relocation work, and progress the project. Activities for utility relocation work will be included in the baseline schedule. Acquisition of ROW and easements will be prioritized to allow for relocation of utilities as early as possible. The new alignment portions of the roadway will be available soon after ROW is acquired, and we will work closely with the utility companies in these areas to help expedite their work. The LANE Team will also maintain clear markings of all utility lines throughout the construction period. All utilities will undergo extensive design and constructability reviews and along with input from the utility owners, the LANE Team will determine optimum design for the project's design and construction so as to minimize or eliminate any negative utility impacts.

Role of VDOT and Other Agencies: VDOT will not have a major role beyond providing the LANE Team with previously collected utility information pertinent to the project, review and approval of utility cost-share agreements, and providing other necessary approvals. VDOT-owned facilities (traffic signals, ITS, etc.) would be coordinated similar to other utility owners. VDOT would also be invited to meetings involving the FAA or other Federal agencies. The LANE Team will coordinate directly with the utility companies; however, in the event that unforeseen circumstances arise or if the utility companies fail to participate to the necessary level, we would request oversight and assistance from VDOT to gain the necessary cooperation.

APPENDIX

ATTACHMENT 3.1.2
SOQ CHECKLIST

ATTACHMENT 3.1.2

Project: 0007-253-009

STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

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

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 15-page limit?	SOQ Page Reference
Statement of Qualifications Checklist and Contents	Attachment 3.1.2	Section 3.1.2	no	**Appendix Attachment 3.1.2**
Acknowledgement of RFQ, Revision and/or Addenda	Attachment 2.10 (Form C-78-RFQ)	Section 2.10	no	**Appendix Attachment 2.10**
Letter of Submittal (on Offeror's letterhead)				
Authorized Representative's signature	NA	Section 3.2.1	yes	**Page 2**
Offeror's point of contact information	NA	Section 3.2.2	yes	**Page 1**
Principal officer information	NA	Section 3.2.3	yes	**Page 2**
Offeror's Corporate Structure	NA	Section 3.2.4	yes	**Page 2**
Identity of Lead Contractor and Lead Designer	NA	Section 3.2.5	yes	**Page 2**
Affiliated/subsidiary companies	Attachment 3.2.6	Section 3.2.6	no	**Page 2 & 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: 0007-253-009

STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 15-page limit?	SOQ Page Reference
Offeror's VDOT prequalification evidence	NA	Section 3.2.8	no	**Appendix**
Evidence of obtaining bonding	NA	Section 3.2.9	no	**Appendix**
SCC and DPOR registration documentation (Appendix)	Attachment 3.2.10	Section 3.2.10	no	**Appendix Attachment 3.2.10**
Full size copies of SCC Registration	NA	Section 3.2.10.1	no	**Appendix**
Full size copies of DPOR Registration (Offices)	NA	Section 3.2.10.2	no	**Appendix**
Full size copies of DPOR Registration (Key Personnel)	NA	Section 3.2.10.3	no	**Appendix**
Full size copies of DPOR Registration (Non-APELSCIDLA)	NA	Section 3.2.10.4	no	**N/A**
DBE statement within Letter of Submittal confirming Offeror is committed to achieving the required DBE goal	NA	Section 3.2.11	yes	**Page 2**
Offeror's Team Structure				**Page 3**
Identity of and qualifications of Key Personnel	NA	Section 3.3.1	yes	**Page 3**
Key Personnel Resume – DB Project Manager	Attachment 3.3.1	Section 3.3.1.1	no	**Appendix Attachment 3.3.1**

ATTACHMENT 3.1.2

Project: 0007-253-009

STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 15-page limit?	SOQ Page Reference
Key Personnel Resume – Quality Assurance Manager	Attachment 3.3.1	Section 3.3.1.2	no	**Appendix Attachment 3.3.1**
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**
Key Personnel Resume – Utility Coordination Manager	Attachment 3.3.1	Section 3.3.1.5	no	**Appendix Attachment 3.3.1**
Organizational chart	NA	Section 3.3.2	yes	**Page 4**
Organizational chart narrative	NA	Section 3.3.2	yes	**Pages 5-8**
Experience of Offeror's Team				**Page 9**
Lead Contractor Work History Form	Attachment 3.4.1(a)	Section 3.4	no	**Appendix Attachment 3.4.1(a)**
Lead Designer Work History Form	Attachment 3.4.1(b)	Section 3.4	no	**Appendix Attachment 3.4.1(b)**
Project Risk				**Pages 10-15**
Identify and discuss three critical risks for the Project	NA	Section 3.5.1	yes	**Pages 10-15**

ATTACHMENT 2.10
FORM C-78-RFQ

ATTACHMENT 2.10

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

RFQ NO. C00106573DB101

PROJECT NO.: 0007-253-009

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 – December 8, 2018
   (Date)
2. Cover letter of _____
   (Date)
3. Cover letter of _____
   (Date)

SIGNATURE

January 31, 2018
DATE

Ali Alkouraishi
PRINTED NAME

Pursuit Manager
TITLE

ATTACHMENT 3.2.6
AFFILIATED AND SUBSIDIARY COMPANIES OF THE OFFEROR

ATTACHMENT 3.2.6

State Project No. 0007-253-009

Affiliated and Subsidiary Companies of the Offeror

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

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

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

Relationship with Offeror (Affiliate or Subsidiary)	Full Legal Name	Address
AFFILIATE (PARENT)	Lane Industries Incorporated	90 Fieldstone Court Cheshire CT 06410 -1212
AFFILIATE (GRANDPARENT)	Salini-Impregilo US Holdings, Inc.	2711 Centerville, Ste. 400 Wilmington, DE 19808
AFFILIATE (ULTIMATE PARENT)	Salini Impregilo, S.p.A.	Via dei Missaglia, 97 20142 Milan, Italy
AFFILIATE	Lane Worldwide Infrastructure, Inc.	90 Fieldstone Court Cheshire CT 06410 -1212
AFFILIATE	Lane Infrastructure. Inc.	90 Fieldstone Court Cheshire CT 06410 -1212
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 & 10th Streets
AFFILIATE	Lane Mideast Qatar, LLC	Grand Hamad Street, Bin Al Sheikh Bldg. 3rd Floor, Doha, Qatar
AFFILIATE	Lane Power & Energy Solutions, Inc.	16000 Park Ten Place, Suite 703 Houston, TX 77084
SUBSIDIARY	Wardwell Family Realty, LLC	90 Fieldstone Court Cheshire, CT 06410-1212

AFFILIATE (JOINT VENTURE – LANE 20%)	AGL Constructors	929 West Adams Street Chicago, IL 60607
AFFILIATE (JOINT VENTURE – LANE 45%)	Fluor-Lane South Carolina	100 Fluor Daniel Drive Greenville, SC 29607
AFFILIATE (JOINT VENTURE – LANE 40%)	Salini Impregilo Healy JV	786 E. 140th Street Cleveland, OH 44110
AFFILIATE (JOINT VENTURE – LANE 70%)	Salini Impregilo Healy JV NEBT	2600 Independence Avenue, SE Washington, DC 20003
AFFILIATE (JOINT VENTURE – LANE 51%)	Lane-Abrams Joint Venture	3001 Meacham Boulevard, Suite 215 Fort Worth, TX 76137
AFFILIATE (JOINT VENTURE – LANE 30%)	Skanska-Granite-Lane Joint Venture and I4 Leasing, LLC	295 Bendix Road, Suite 400 Virginia Beach, VA 23452
AFFILIATE (JOINT VENTURE – LANE 30%)	Purple Line Transit Constructors, LLC	6811 Kenilworth Avenue East Riverdale, MD 20737
AFFILIATE (JOINT VENTURE – LANE 45%)	Unionport Constructors JV	150 Meadowlands Pkwy # 3 Secaucus, NY 07094
AFFILIATE (JOINT VENTURE – LANE 20%)	Impregilo Healy Parsons JV	2600 Independence Avenue, SE Washington, DC 2000
AFFILIATE (JOINT VENTURE – LANE 70%)	Salini Impregilo Healy JV 3RPORT	90 Fieldstone Court Cheshire, CT 06410-1212
DBA NAME	Civil Wall Solutions, A Division of The Lane Construction Corporation	90 Fieldstone Court Cheshire, CT 06410-1212
DBA NAME	Cold River Materials, A Division of The Lane Construction Corporation	90 Fieldstone Court Cheshire, CT 06410-1212
DBA NAME	Lane Concrete Frames, A Division of The Lane Construction Corporation	90 Fieldstone Court Cheshire, CT 06410-1212
DBA NAME	Prestress of the Carolinas, A Division of the Lane Construction Corporation	90 Fieldstone Court Cheshire, CT 06410-1212
DBA NAME	Lanecon Corporation	90 Fieldstone Court Cheshire, CT 06410-1212

DBA NAME	Senate Asphalt, A Division of The Lane Construction Corporation	90 Fieldstone Court Cheshire, CT 06410-1212
DBA NAME	Virginia Paving Company, A Division of The Lane Construction Corporation	90 Fieldstone Court Cheshire, CT 06410-1212
DBA NAME	Virginia Sign and Lighting Company, Division of The Lane Construction Corporation	90 Fieldstone Court Cheshire, CT 06410-1212
DBA NAME	S.A. Healy Company	90 Fieldstone Court Cheshire, CT 06410-1212

ATTACHMENT 3.2.7(a)
DEBARMENT FORM - PRIMARY COVERED TRANSACTIONS

ATTACHMENT 3.2.7(a)

CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project No.: 0007-253-009

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

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

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

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

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

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

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

Signature	January 31, 2018 Date	Pursuit Manager Title

The Lane Construction Corporation
Name of Firm

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

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0007-253-009

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

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

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

Signature	January 31, 2018 Date	Vice President Title

Johnson, Mirmiran & Thompson, Inc.
Name of Firm

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0007-253-009

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

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

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

Signature	Date	Title
	1/9/2018	President

CES CONSULTING LLC

Name of Firm

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0007-253-009

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

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

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

Signature	January 31, 2018 Date	Vice President Title

DMY Engineering Consultants Inc.
Name of Firm

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0007-253-009

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

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

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

Signature	01/09/2018 Date	Principal Title

DULLES GEOTECHNICAL AND MATERIAL TESTING SERVICES, INC.
Name of Firm

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0007-253-009

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

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

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

Signature	January 31, 2018 Date	President Title

Endesco, Inc.
Name of Firm

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0007-253-009

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

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

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

Signature	January 31, 2018	Mary Ellen Eagan President and CEO
	Date	Name and Title

Harris Miller Miller & Hanson Inc.

Name of Firm

OFFEROR'S VDOT PREQUALIFICATION CERTIFICATE

COMMONWEALTH OF VIRGINIA

VDOT
Virginia Department of Transportation

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; ASPHALT CONCRETE PAVING; PORTLAND CEMENT CONCRETE PAVING; MINOR STRUCTURES; UNDERGROUND UTILITIES

Issue Date: June 30, 2017

This Rating and Classification will Expire: June 30, 2018

Issued under the authority of:
Don E. Silies, Director of Contracts

SURETY LETTER

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

January 19, 2018

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

RE: **The Lane Construction Corporation**
Request for Qualifications
A DESIGN-BUILD PROJECT - ROUTE 7 AND BATTLEFIELD PARKWAY INTERCHANGE
From: 0.75 Miles W. of Battlefield Pkwy Along Rte. 7, To: 0.75 Miles E. of Battlefield Pkwy Along Rte. 7
From: 0.25 Miles S. of Rte. 7 Along Battlefield Pkwy, To: 0.40 Miles N. of Rte. 7 Along Battlefield Pkwy
Town of Leesburg, Virginia; State Project No.: 0007-253-009, P101, R201, C501, B601
Federal Project No.: STP-5A01(704); Contract ID Number: C00106573DB101
Estimated Contract Price: $42,000,000.00

To Whom It May Concern:

This letter will serve to confirm that The Lane Construction Corporation is a highly regarded and valued client of Aon Risk Solutions and the sureties, Liberty Mutual Insurance Company, Berkshire Hathaway Specialty Insurance Company, Fidelity and Deposit Company of Maryland and National Union Fire Insurance Company of Pittsburgh, PA (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, 2017. Furthermore, each surety company is rated "A" or better by A.M. Best Company, all with Financial Size Category "XV".

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

Naturally, as is customary within the surety industry, the issuance of any bonds is contingent upon a favorable underwriting review of project specifics including, but not limited to, the contract terms, conditions, documents, bond forms and confirmation of complete project financing by both The Lane Construction Corporation and its co-sureties 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

Theresan E. Rowedder
Attorney-in-Fact

Aon Risk Services
One Federal Street, 20th Floor
Boston, MA 02110
860-830-1769

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. 7856086

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

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Bryan Huft; Jane Gilson; Jean Correia; 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 7th day of August, 2017.

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

By: _____
David M. Carey, Assistant Secretary

STATE OF PENNSYLVANIA ss
COUNTY OF MONTGOMERY

On this 7th day of August, 2017, before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at King of Prussia, Pennsylvania, on the day and year first above written.

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

By: _____
Teresa Pastella, Notary Public

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

ARTICLE IV – OFFICERS – Section 12. Power of Attorney. Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII – Execution of Contracts – SECTION 5. Surety Bonds and Undertakings. Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

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

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

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

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 19TH day of JANUARY, 20 18.

By: _____
Renee C. Llewellyn, 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.

LMS_12873_022017

Berkshire Hathaway Specialty Insurance

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 **NATIONAL LIABILITY & FIRE INSURANCE COMPANY**, a corporation existing under and by virtue of the laws of the State of Connecticut (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 E. 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 2, 2017. 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. The following signature by an authorized officer of the Company may be a facsimile, which shall be deemed the equivalent of and constitute the written signature of such officer of the Company for all purposes regarding this Power of Attorney, including satisfaction of any signature requirements on any and all undertakings, bonds, or other such writings obligatory in the nature thereof, to which this Power of Attorney applies.

BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY,

By: _____
David Fields, Executive Vice President

NATIONAL INDEMNITY COMPANY, NATIONAL LIABILITY & FIRE INSURANCE COMPANY,

By: _____
David Fields, Vice President

NOTARY
State of Massachusetts, County of Suffolk, ss:
On November 2, 2017 before me appeared David Fields, Executive Vice President of BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY and Vice President of NATIONAL INDEMNITY COMPANY and NATIONAL LIABILITY & FIRE INSURANCE COMPANY, who being duly sworn, says that his capacity is as designated above for such Companies; that he knows the corporate seals of the Companies; that the seals affixed to the foregoing instrument are such corporate seals; that they were affixed by order of the board of directors or other governing body of said Companies pursuant to its Bylaws, Resolutions and other Authorizations, and that he signed said instrument in that capacity of said Companies.
[Notary Seal]

_____
Notary Public

I, Ralph Tortorella, the undersigned, Officer of **BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY, NATIONAL INDEMNITY COMPANY** and **NATIONAL LIABILITY & FIRE INSURANCE COMPANY**, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies which is in full force and effect and has not been revoked. IN TESTIMONY WHEREOF, I have hereunto affixed the seals of said companies this date of January 19, 2018.

_____
Officer

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 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) 507-8529, or via mail 500 Northpark Town Center, 1100 Abernathy Road, N.E., Suite 1200, Atlanta, GA 30328

BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY (BYLAWS)

ARTICLE V.

CORPORATE ACTIONS

. . . .

EXECUTION OF DOCUMENTS:

. . . .

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

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

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

NATIONAL INDEMNITY COMPANY (BY-LAWS)

Section 4. Officers, Agents, and Employees:

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

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

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

NATIONAL LIABILITY & FIRE INSURANCE COMPANY (BY-LAWS)

ARTICLE IV

Officers

Section 1. Officers, Agents and Employees:

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

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

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

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 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 10th day of April, A.D. 2017.

ATTEST:

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

By: _____
Secretary
Michael McKibben

_____
Vice President
Gerald F. Haley

State of Maryland
County of Baltimore

On this 10th day of April, A.D. 2017, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, **GERALD F. HALEY, Vice President, and MICHAEL MCKIBBEN, Secretary,** of the Companies, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and acknowledged the execution of same, and being by me duly sworn, deposeth and saith, that he/she is the said officer of the Company aforesaid, and that the seals affixed to the preceding instrument are the Corporate Seals of said Companies, and that the said Corporate Seals and the signature as such officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporations.

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

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

POA-F 063-0474

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 of 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 19TH day of JANUARY, 2018.

Michael Bond, Vice President

TO REPORT A CLAIM WITH REGARD TO A SURETY BOND, PLEASE SUBMIT ALL REQUIRED INFORMATION TO:

Zurich American Insurance Co.
Attn: Surety Claims
1299 Zurich Way
Schaumburg, IL 60196-1056

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. 2964

No. 01-B-103378

KNOW ALL MEN BY THESE PRESENTS:

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

---Mark P. Herendeen, Jean Correia, Maria Chaves, Jane Gilson, Theresan 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 17th day of July, 2017

Michael Yang, Vice President

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

On this 17th day of July, 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.

JULIANA HALLENBECK
Notary Public - State of New York
No. 01HA6125071
Qualified in Bronx County
My Commission Expires April 18, 2021

CERTIFICATE

Exerpts 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 exerpts 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 19th day of JANUARY, 2018

Martin Bogue, Assistant Secretary

65166 (4/96)

ATTACHMENT 3.2.10
SCC AND DPOR INFORMATION TABLES

ATTACHMENT 3.2.10

State Project No. 0007-253-009

SCC and DPOR Information

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

SCC & DPOR INFORMATION FOR BUSINESSES (RFQ Sections 3.2.10.1 and 3.2.10.2)

Business Name	SCC Information (3.2.10.1)			DPOR Information (3.2.10.2)			
	SCC Number	SCC Type of Corporation	SCC Status	DPOR Registered Address	DPOR Registration Type	DPOR Registration Number	DPOR Expiration Date
The Lane Construction Corporation	F0254476	Foreign Corporation	Active	90 Fieldstone Court Cheshire, CT 06410	Contractor Class A	2701011871	01-31-2020
The Lane Construction Corporation	F0254476	Foreign Corporation	Active	90 Fieldstone Court Cheshire, CT 06410	Business Entity Registration	0407002174	12-31-2019
The Lane Construction Corporation	F0254476	Foreign Corporation	Active	14500 Avion Parkway, Suite 200 Chantilly, VA 20151	Business Entity Branch Office Registration	0411000988	02-28-2018
Johnson, Mirmiran & Thompson, Inc.	F149901-3	Foreign Corporation	Active	13921 Park Center Road, Suite 140 Herndon VA, 20171	Business Entity Branch Office Registration	0411000441	02-28-2018
Johnson, Mirmiran & Thompson, Inc.	F149901-3	Foreign Corporation	Active	9201 Arboretum Pkwy, Suite 310 Richmond, VA 23236	Business Entity Branch Office Registration	0411000029	02-28-2018
Johnson, Mirmiran & Thompson, Inc.	F149901-3	Foreign Corporation	Active	272 Bendix Road, Suite 260 Virginia Beach, VA 23452	Business Entity Branch Office Registration	0411000440	02-28-2018

ATTACHMENT 3.2.10

State Project No. 0007-253-009

SCC and DPOR Information

Johnson, Mirmiran & Thompson, Inc.	F149901-3	Foreign Corporation	Active	40 Wight Avenue Hunt Valley, MD 21030	Business Entity Registration	0407001314	12-31-2019
CES Consulting, LLC	S3416007	Limited Liability Company	Active	23475 Rock Haven Way Suite 255 Dulles, VA 20166	Business Entity Registration	0407005783	12-31-2019
DMY Engineering Consultants, Inc.	07688955	Corporation	Active	45662 Terminal Drive, Suite 110 Dulles, VA 20166	Business Entity Registration	0407005631	12-31-2019
Dulles Geotechnical and Material Testing Services, Inc.	07582323	Corporation	Active	14119 Sullyfield Circle, Suite H, Chantilly, VA 20151	Business Entity Registration	0407006236	12-31-2019
Endesco, Inc.	F1337361	Foreign Corporation	Active	15245 Shady Grove Road Suite 335 Rockville, MD 20850	Business Entity Registration	0407005431	12-31-2019
Harris, Miller, Miller & Hanson Inc.	F1451857	Foreign Corporation	Active	77 South Bedford Street Burlington, MA 01803	NA	NA	NA

ATTACHMENT 3.2.10

State Project No. 0007-253-009

SCC and DPOR Information

DPOR INFORMATION FOR INDIVIDUALS (RFQ Sections 3.2.10.3 and 3.2.10.4)						
Business Name	**Individual's Name**	**Office Location Where Professional Services will be Provided (City/State)**	**Individual's DPOR Address**	**DPOR Type**	**DPOR Registration Number**	**DPOR Expiration Date**
Johnson, Mirmiran & Thompson, Inc.	Malinoski, David Anthony	Richmond, VA	6153 Stronghold Drive Mechanicsville, VA 23111	Professional Engineer	0402031971	02-28-2018
Johnson, Mirmiran & Thompson, Inc.	Reed, Robert G.	Herndon, VA	2398 Little River Rd, Haymarket, VA 20169	Professional Engineer	0402018550	04-30-2019
CES Consulting, LLC	Singh, Avtar	Dulles, VA	6773 Leopolds Trail, Haymarket, VA 20169	Professional Engineer	0402035169	01-31-2019

FULL SIZE SCC
SUPPORTING DOCUMENTATION


SCC eFile
FAST. SIMPLE. SECURE.
SCC eFile
SCC eFile Home Page
Check Name Distinguishability
Business Entity Search
Certificate Verification
FAQs
Contact Us
Give Us Feedback
Business Entities
UCC or Tax Liens
Court Services
Additional Services
THE LANE CONSTRUCTION CORPORATION
General
SCC ID: F0254476
Entity Type: Foreign Corporation
Jurisdiction of Formation: CT
Date of Formation/Registration: 7/24/1972
Status: Active
Shares Authorized: 15720
Principal Office
90 FIELDSTONE COURT
CHESHIRE CT06410


SCC eFile
FAST. SIMPLE. SECURE.
SCC eFile
SCC eFile Home Page
Check Name Distinguishability
Business Entity Search
Certificate Verification
FAQs
Contact Us
Give Us Feedback
Business Entities
UCC or Tax Liens
Court Services
Additional Services
Johnson, Mirmiran & Thompson, Inc.
General
SCC ID: F1499013
Entity Type: Foreign Corporation
Jurisdiction of Formation: MD
Date of Formation/Registration: 10/17/2006
Status: Active
Shares Authorized: 1000
Principal Office
40 WIGHT AVE
HUNT VALLEY MD21030

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- Certificate Verification
- FAQs
- Contact Us
- Give Us Feedback

Business Entities
UCC or Tax Liens
Court Services
Additional Services

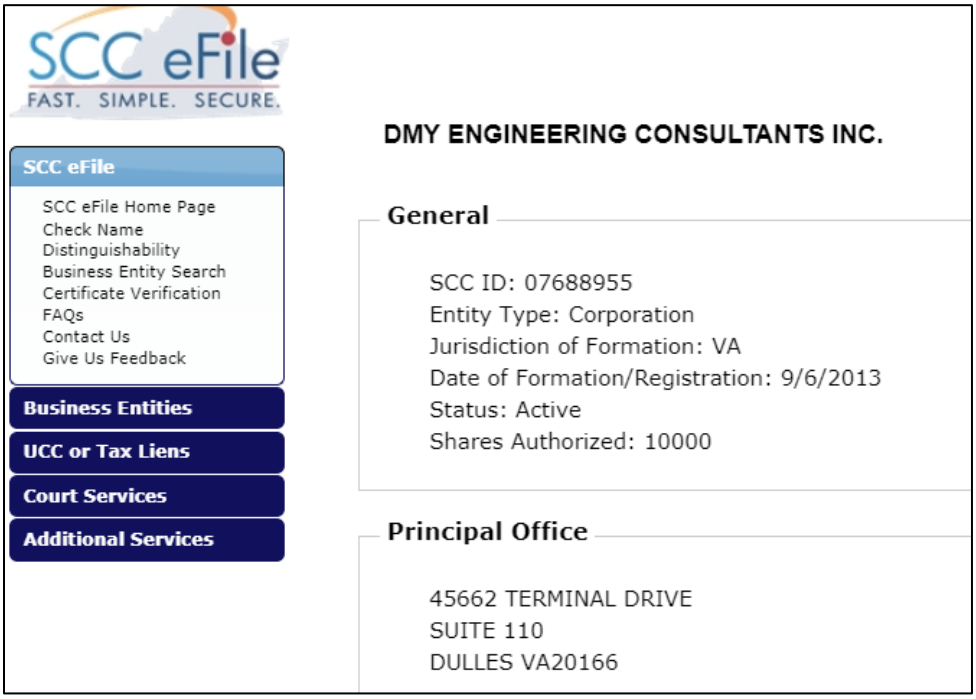
CES Consulting, LLC

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



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Business Entities
UCC or Tax Liens
Court Services
Additional Services

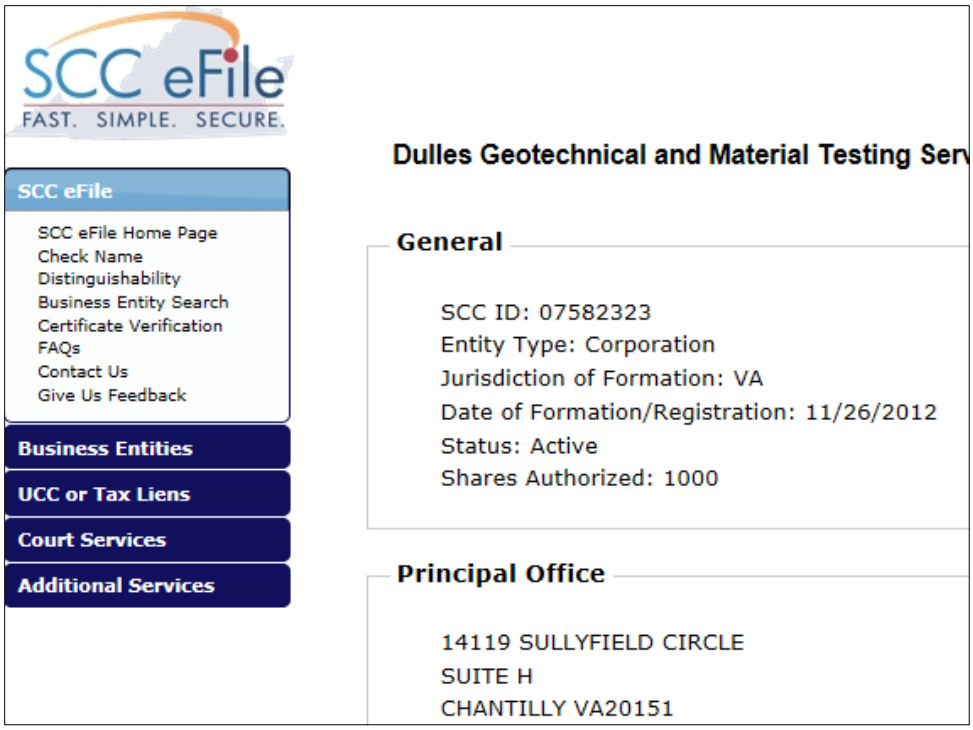
DMY ENGINEERING CONSULTANTS INC.

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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Business Entity Search
Certificate Verification
FAQs
Contact Us
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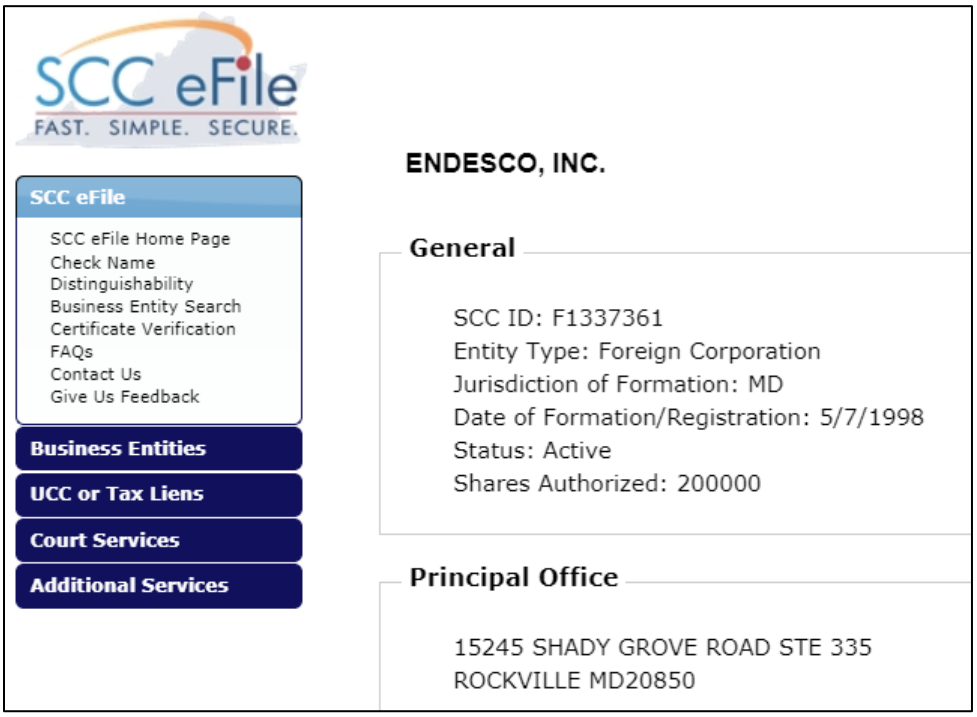
Business Entities
UCC or Tax Liens
Court Services
Additional Services
Dulles Geotechnical and Material Testing Serv
General
SCC ID: 07582323
Entity Type: Corporation
Jurisdiction of Formation: VA
Date of Formation/Registration: 11/26/2012
Status: Active
Shares Authorized: 1000
Principal Office
14119 SULLYFIELD CIRCLE
SUITE H
CHANTILLY VA20151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SCC eFile
SCC eFile Home Page
Check Name
Distinguishability
Business Entity Search
Certificate Verification
FAQs
Contact Us
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Business Entities
UCC or Tax Liens
Court Services
Additional Services
ENDESCO, INC.
General
SCC ID: F1337361
Entity Type: Foreign Corporation
Jurisdiction of Formation: MD
Date of Formation/Registration: 5/7/1998
Status: Active
Shares Authorized: 200000
Principal Office
15245 SHADY GROVE ROAD STE 335
ROCKVILLE MD20850


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Business Entity Search
Certificate Verification
FAQs
Contact Us
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Business Entities
UCC or Tax Liens
Court Services
Additional Services
Harris Miller Miller & Hanson Inc.
General
SCC ID: F1451857
Entity Type: Foreign Corporation
Jurisdiction of Formation: MA
Date of Formation/Registration: 12/6/2000
Status: Active
Shares Authorized: 300000
Principal Office
77 SOUTH BEDFORD ST
BURLINGTON MA01803

FULL SIZE
DPOR SUPPORTING DOCUMENTATION
FOR EACH OFFICE

DPOR License Lookup License Number 2701011871

License Details

Name	THE LANE CONSTRUCTION CORPORATION / SENATE ASPHALT
DBA Name	VA PAVING COMPANY / VA SIGN AND LIGHTING COMPANY
License Number	2701011871
License Description	Contractor
Firm Type	Corporation
Rank [1]	Class A
Address	90 FIELDSTONE COURT, CHESHIRE, CT 06410
Specialties [2]	Commercial Building (CBC) Highway / Heavy (H/H) Residential Building (RBC)
Initial Certification Date	1972-10-12
Expiration Date	2020-01-31

DPOR License Lookup License Number 0407002174

License Details

Name	THE LANE CONSTRUCTION CORPORATION / SENATE ASPHALT
License Number	0407002174
License Description	Business Entity Registration
Firm Type	Corporation
Rank	Business Entity
Address	90 FIELDSTONE COURT, CHESHIRE, CT 06410
Initial Certification Date	1985-09-30
Expiration Date	2019-12-31

DPOR License Lookup License Number 0411000988

License Details

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

DPOR License Lookup License Number 0411000441

License Details

Name	JOHNSON MIRMIRAN & THOMPSON INC
License Number	0411000441
License Description	Business Entity Branch Office Registration
Rank	Business Entity Branch Office
Address	13921 PARK CENTER RD SUITE 140, HERNDON, VA 20171
Initial Certification Date	2006-03-06
Expiration Date	2018-02-28

DPOR License Lookup License Number 0411000029

License Details

Name	JOHNSON, MIRMIRAN & THOMPSON, INC.
License Number	0411000029
License Description	Business Entity Branch Office Registration
Business Type	Corporation
Rank	Business Entity Branch Office
Address	9201 ARBORETUM PKWY SUITE 310, RICHMOND, VA 23236
Initial Certification Date	1992-03-24
Expiration Date	2018-02-28

DPOR License Lookup License Number 0411000440

License Details

Name	JOHNSON MIRMIRAN & THOMPSON INC
License Number	0411000440
License Description	Business Entity Branch Office Registration
Rank	Business Entity Branch Office
Address	272 BENDIX ROAD SUITE 260, VIRGINIA BEACH, VA 23452
Initial Certification Date	2006-03-06
Expiration Date	2018-02-28

DPOR License Lookup License Number 0407001314

License Details

Name	JOHNSON MIRMIRAN & THOMPSON INC
License Number	0407001314
License Description	Business Entity Registration
Rank	Business Entity
Address	40 WIGHT AVE, HUNT VALLEY, MD 21030
Initial Certification Date	1982-08-30
Expiration Date	2019-12-31

CES Consulting, LLC

DPOR License Lookup License Number 0407005783

License Details

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

DMY Engineering Consultants, Inc.

DPOR License Lookup License Number 0407005631

License Details

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

Dulles Geotechnical and Material Testing Services, Inc

DPOR License Lookup License Number 0407006236

License Details

Name	DULLES GEOTECHNICAL AND MATERIAL TESTING SERVICES, INC
License Number	0407006236
License Description	Business Entity Registration
Firm Type	Corporation
Rank	Business Entity
Address	14119 SULLYFIELD CIR STE H, CHANTILLY, VA 20151
Initial Certification Date	2013-02-15
Expiration Date	2019-12-31

Endesco, Inc.

DPOR License Lookup License Number 0407005431

License Details

Name	ENDESCO, INC.
License Number	0407005431
License Description	Business Entity Registration
Firm Type	Corporation
Rank	Business Entity
Address	15245 SHADY GROVE RD STE 335, ROCKVILLE, MD 20850
Initial Certification Date	2009-05-05
Expiration Date	2019-12-31

Harris, Miller, Miller & Hanson, Inc.

N/A

FULL SIZE
DPOR SUPPORTING DOCUMENTATION
FOR KEY PERSONNEL

KEY PERSONNEL DPOR

Malinoski, David Anthony

DPOR License Lookup License Number 0402031971

License Details

Name	MALINOSKI, DAVID ANTHONY
License Number	0402031971
License Description	Professional Engineer License
Rank	Professional Engineer
Address	MECHANICSVILLE, VA 23111
Initial Certification Date	1998-02-23
Expiration Date	2018-02-28

Reed, Robert G.

DPOR License Lookup License Number 0402018550

License Details

Name	REED, ROBERT G
License Number	0402018550
License Description	Professional Engineer License
Rank	Professional Engineer
Address	HAYMARKET, VA 20169
Initial Certification Date	1988-06-17
Expiration Date	2019-04-30

Singh, Avtar

DPOR License Lookup License Number 0402035169

License Details

Name	SINGH, AVTAR
License Number	0402035169
License Description	Professional Engineer License
Rank	Professional Engineer
Address	HAYMARKET, VA 20169
Initial Certification Date	2001-01-18
Expiration Date	2019-01-31

ATTACHMENT 3.3.1
KEY PERSONNEL RESUMES

ATTACHMENT 3.3.1(a)

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title: **GERRY HARGIS, DISTRICT MANAGER**

b. Project Assignment: **DESIGN BUILD PROJECT MANAGER**

c. Name of all Firms with which you are employed at the time of submitting SOQ's. In addition, please denote the type of employment (Full time/Part time): **THE LANE CONSTRUCTION CORPORATION (FULL TIME)**

d. Employment History: With this Firm **<1** Year with Other Firms **39** 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):

The Lane Construction Corporation, District Manager – 2017 – Present: Mr. Hargis is a District Manager with over 40 years of bridge and roadway construction experience including major design-build projects, concentrated in the Commonwealth of Virginia and the Carolinas. He has extensive experience on wide assortment of highway reconstruction projects, involving utility coordination, as well as environmental permitting and compliance, ranging in value from $5M to $200M. The scope of his projects have included bridge replacement, roadway widening and rehabilitation, dirt and rock excavation, blasting, excavation support, micro-piles, caissons, underground utilities, storm drainage, reinforced structural concrete, architectural concrete, concrete pavement, asphalt pavement, milling, traffic control, site electrical, and precast concrete. As District Manager Mr. Hargis ensures all contract obligations are met and 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. Hargis also coordinates public outreach and public meetings. Mr. Hargis adds the value of knowledge and experience to manage the construction of the new interchange on Route 7.

R.R. Dawson Bridge Co, LLC, Area Manager – 2003 – 2017: As the Area Manager for R.R. Dawson Bridge Co., Mr. Hargis was responsible for every facet of construction from the selection of project to pursue to the ultimate completion of those projects that R. R. Dawson was successful in procuring. Mr. Hargis supervised and managed 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. Before becoming Area Manager for R. R. Dawson Bridge, Mr. Hargis served as the Project Manager for several large, high profile projects such as the Fairfax County Parkway, the Wiley Bridge in Richmond, Virginia and the I-664 approaches to the Monitor Merrimac tunnel in Newport News, Virginia.

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:
Morehead State University/ Bachelor of Science/ Business Management/ 1972

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

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

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

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

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

VDOT, Spotsylvania Parkway Bridge over I-95, *Fredericksburg, VA* **(DESIGN-BUILD)**

Name of Firm:	R.R. Dawson Bridge Company, LLC	**Project Role:**	Project Manager/Area Manager
Beginning Date:	9/2010	**End Date:**	12/2011

Specific Responsibilities: As the Project Manager/Area Manager, Mr. Hargis was responsible for the final design and construction of the project, coordination and communication the with design engineer and Owner from start to finish; oversight of equipment and manpower projections. Key similarities and experiences as the Project Manager/Area Manager on this project include, coordination with the Owner and design firm, utility owners, VDOT MOT, and managing an aggressive construction schedule critical to the opening of the new hospital. He provided oversight to the scheduling and performance of subcontractors and suppliers. The project had no lost time accidents.

Project Relevance: This $5.2M D-B project with The Silver Companies consisted of the construction of a new 274-foot mainline structure over I-95 at Cosner's Corner. In order to complete the project on time for the opening of the new Spotsylvania Hospital, The Silver Companies financed the project until the construction was complete. The bridge was critical for the accelerated opening date for the new hospital. The bridge was constructed under traffic, over existing I-95, and included the installation of excavated cofferdams for the piers, 53" Prestressed Concrete Bulb Tee girders with 3 spans lengths of 107', 60'and 107'. Mr. Hargis

coordinated all design with VDOT's Charlie Kilpatrick, The Silver Companies and the project designer, Kimley-Horn. Like the Route 7 & Battlefield Parkway Interchange project, this project involved utility relocation coordination, community involvement, owner relations, D-B, stakeholder communication, and project management. Mr. Hargis worked closely with the QA/QC subconsultant providing all information and assistance required. Held weekly meetings that included QA/QC. The project finished ahead of schedule in order to open the hospital access on time.

VDOT, Woodrow Wilson Bridge Project, Route 1 Interchange Advanced Bridges, *Alexandria, VA*

Name of Firm:	R. R. Dawson Bridge Company, LLC	**Project Role:**	Project Manager/Area Manager
Beginning Date:	04/2003	**End Date:**	04/2005

Specific Responsibilities: As the Project Manager/Area Manager, Mr. Hargis was responsible for overall construction of the interchange and various, 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. Additionally, due to multiple issues there were numerous changes that impacted the project. Mr. Hargis developed a plan to construct the Cameron Run Bridge (B626), adjacent to the I-495 Beltway, without using the planned lane closures thereby eliminating the impact to this heavily traveled artery. He provided oversight to scheduling and performance of numerous subcontractors and suppliers, as well as all interface with VDOT, consultant engineers, environmental compliance and permitting agencies on a daily basis. The project had no lost time accidents.

Project Relevance: This $52M project was recognized by VDOT as the Statewide Quality winner which is chosen annually. Some relevant aspects to the Route 7 & Battlefield Parkway Interchange project include, project management, stakeholder coordination, owner and design coordination, procurement and furnishing of all materials, utility relocation, MOT, equipment, services and labor necessary for project completion. Mr. Hargis oversaw the project schedule, timelines and milestones, team supervision, development of best practices and tools for project execution. Dawsons' QC Manager, reported directly to Mr. Hargis, and worked closely with VDOT's QA/QC consultant ensuring all aspects of specifications were met.

City of Chesapeake, Dominion Boulevard Route 17, *Chesapeake, VA*

Name of Firm:	R. R. Dawson Bridge Company, LLC	**Project Role:**	Project Manager/Area Manager
Beginning Date:	03/2014	**End Date:**	06/2017

Specific Responsibilities: As the Project Manager/Area Manager, Mr. Hargis was responsible for management of R. R. Dawson Bridge Company's portion of work for this Joint Venture project. Mr. Hargis was a member of the Joint Venture Executive Committee which was charged with the responsibility of oversight for the entire $200M contract with the City of Chesapeake. Some of these responsibilities included contract management, scheduling, coordination with suppliers and subcontractors, conducted meetings on site with project personnel and City Officials, coordinated with the City of Chesapeake's QA/QC, environmental, utilities and traffic representatives. This project was a success due to the coordination and cooperation between all parties involved and was completed six (6) months ahead of schedule. Additionally the project had no lost time accidents.

Project Relevance: This $200M project consisted of building 9 bridges total in the City of Chesapeake. Some relevant aspects of this project to the proposed Route 7 and Battlefield Parkway Interchange include close coordination with all parties involved including the City of Chesapeake, utility companies, property owners and businesses, project design, MOT, environmental, project schedule, and public outreach. Mr. Hargis worked closely with Chesapeake City officials who were actively involved in the project and was instrumental in working with the City's bridge consultant, Parsons-Brinckerhoff, in developing a Value Engineering proposal which resulted in significant savings for the City and Dawson and added further value by expediting the completion of the project. Dawson's portion of the project involved the construction of approximately 5,200 LF of twin structures, 110' in height, a portion of which crossed environmentally sensitive areas. Dawson worked with the Environmental Consultant for the project in planning the work to avoid any conflicts with those areas. The Joint Venture partners received an incentive for early completion.

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. Hargis is not required to be on site full time.**

ATTACHMENT 3.3.1(a)

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title: **AVTAR SINGH, PE, CCM, DBIA, PRESIDENT**

b. Project Assignment: **QUALITY ASSURANCE MANAGER**

c. Name of all Firms with which you are employed at the time of submitting SOQ's. In addition, please denote the type of employment (Full time/Part time): **CES CONSULTING, LLC (FULL TIME)**

d. Employment History: With this Firm **7** Years With Other Firms **16** Years

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

CES Consulting, LLC, Consultant Project/Quality Manager – 2011 – Present: Mr. Singh is a registered Professional Civil Engineer in Virginia and a certified Professional of the Design Build Institute of America (DBIA). Mr. Singh has 23 years of progressively more responsible experience in major bridge and interstate heavy civil engineering projects in all phases of project inspection, project scoping and planning, value engineering, constructability analysis, construction and project closeout. Mr. Singh has worked extensively in the **NOVA District** area. He is thoroughly familiar with VDOT Minimum QA/QC Requirements for Design Build projects. He works to ensure conformance with contract/intent, works with designer of record for review and approval; reviews/negotiates work orders and assists design engineers to expedite field changes. Coordinates traffic management with adjacent projects/Traffic Operations Center to ensure minimal disruptions. Reviews baseline schedules and ensure final project quality / closeout. Responsible for quality inspection documentation, correct payments and handling all stakeholder concerns. Additionally, he manages QA staff of up to 2 managers and 40 inspectors.

Virginia Department of Transportation, Area Construction Engineer (ACE) – 2005 – 2010: As VDOT's Area Construction Engineer Mr. Singh managed over 28 road and bridge construction projects with a total value of $230 million. As the Responsible Charge Engineer, he managed Quality Assurance staff of two construction managers and over 35 inspectors with up to eight concurrent projects. Responsible for managing/mentoring Quality Assurance staff, providing schedule analysis and claims reviews, providing technical expertise for field/design issues on ongoing projects and upcoming planned projects. Mr. Singh was responsible for public outreach through seminars, public speaking engagements and multiple political representatives.

NXL Construction Services, Project Construction Quality Engineer/Project Engineer - 2003 – 2004: As a consultant Project Construction Engineer Mr. Singh worked exclusively to manage quality assurance of VDOT bridge and highway projects throughout the Commonwealth as assigned. Provided day to day quality management/inspection of bridge and roadway projects, documentation of work and final project closeouts. As a Project Engineer Mr. Singh provided quality assurance inspection for VDOT road and bridge projects throughout the Commonwealth. Responsible for project documentation, field inspection, materials testing and resolve field change issues.

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:

George Washington University, District of Columbia - Certificate in Management/2009/Project Management
Queen's University, Kingston, Canada - M.Sc./1994/Structural Engineering
Queen's University, Kingston, Canada - B.Sc./1992/Civil Engineering

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

2011/Professional Engineer/VA (#0402035169); Also registered in MD, NC and DC

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

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

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

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

VDOT I-95 Widening Project, *Dumfries, VA*			
Name of Firm:	CES Consulting, LLC	**Project Role:**	Quality Manager
Beginning Date:	03/2013	**End Date:**	03/2015

Specific Responsibilities: Mr. Singh was the Quality Manager for this project, his responsibilities included quality management of 1 VDOT CM and 9 CEI Staff, oversight of all testing, documentation and payment of work on site, worked with FHWA/Design Engineer/Contractor to resolve field construction issues. Enforced VDOT specifications/standards and ensuring that all Non-Conforming Work was properly documented, remediated and closed out.

Project Relevance: This $42M 7-mile-long I-95 widening project included roadway widening, installation of drainage pipes, extensive ITS/TMS work, overhead signs and extensive coordination with concurrent Express Lanes construction in the same project footprint. This project required a corridor wide (from I-95 in Alexandria to Spotsylvania) Traffic Management System for all lane closures, incident management and teamwork to minimize inconveniences to motorists during construction. Similar to the Route 7 and Battlefield Parkway Interchange this project required extensive MOT operations and lane use agreements, coordination with multiple VDOT and County projects in the corridor, relocation of sensitive government ITS facilities and coordination efforts with adjacent projects' utility corridors, ensuring E&S compliance with DEQ permits and E&S control measures coordination with adjacent projects. ***Additionally, Mr. Avtar worked with LANE on this project.***

VDOT Route 29 Solutions, Charlottesville, *VA* **(DESIGN-BUILD)**

Name of Firm:	CES Consulting, LLC	**Project Role:**	Quality Assurance Inspection Manager
Beginning Date:	03/2015	**End Date:**	08/2017

Specific Responsibilities: Mr. Singh was the Quality Assurance Inspection Manager (QAM) for this project, his responsibilities included managing the Quality Assurance Inspection effort, including the QA inspection team, for all three major phases including the Route 29/Route 250 Intersection, the Rio Road Intersection, and the Route 29 widening. Mr. Singh was on site full time, provided on-site leadership for the project and worked closely with all of the project stakeholders to assure all construction components were built to the specifications.

Project Relevance: This $128M D-B Route 29 Solutions Program consisted of eight highway projects to improve safety and increase mobility along the Route 29 corridor in Charlottesville and Albemarle County. This contract included widening of Route 29 between Polo Grounds Road and Towncenter Drive, extended Berkmar Drive from Hilton Heights Road to Towncenter Drive, and constructed a grade-separated intersection at Route 29 and Rio Road. A major highlight of the project was that the team was able to complete the complicated and critical Rio Road Bridge 51 days ahead of schedule and have it opened to traffic. He was also responsible for ensuring successful execution of the project QMP and ensured quick closeout of project. Similar to the Route 7 and Battlefield Parkway Interchange this project required roadway design with a mix of roadway rehabilitation, widening, and new construction, bridge/structures, regional transportation management plan (TMP), critical maintenance of traffic (MOT), environmental compliance, and Public Involvement/Public Relations, among other relevant aspects. ***Additionally, Mr. Avtar worked with LANE on this project.***

VDOT I-66 HOV Widening from 234 Business to 234 Bypass, *Manassas, VA*

Name of Firm:	VDOT	**Project Role:**	Responsible Charge Engineer
Beginning Date:	03/2005	**End Date:**	08/2006

Specific Responsibilities: Mr. Singh was the Responsible Charge Engineer (on site) for this project and managed a staff of 15 QA inspectors; served as technical source for field and design issues, oversight of all testing, documentation and payment of work on site. He coordinated/met with design engineers to seamlessly integrate plans for future tie-in projects to current project. Apply lessons learned to future proposed projects; designed plan MOT sequencing for next project was changed based on lessons learned. Enforce VDOT specifications/standards and ensuring that all Non-Conforming Work is properly documented, remediated and closed out.

Project Relevance: This $37M project consisted of the widening of 3 miles of I-66 with extensive MOT traffic shifts, deep box culverts, extensive shoring, drainage and TMS work. Similar to the Route 7 and Battlefield Parkway Interchange this project had extensive MOT coordination, hydraulics, bridges/structures, erosion control, geotechnical, utility coordination and roadway widening. ***Additionally, Mr. Avtar worked with LANE on this project and our proposed CM (Bob Cross.)***

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. Singh is not required to be onsite full time.**

ATTACHMENT 3.3.1(a)

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title: **ROBERT REED, PE, VICE PRESIDENT**

b. Project Assignment: **DESIGN MANAGER**

c. Name of all Firms with which you are employed at the time of submitting SOQ's. In addition, please denote the type of employment (Full time/Part time): **JOHNSON, MIRMIRAN & THOMPSON (FULL TIME)**

d. Employment History: With this Firm **5** Years with Other Firms **39** 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):

Johnson, Mirmiran & Thompson, Northern Virginia Roadway Design Manager; September 2012 – Present. Mr. Reed manages roadway design and planning projects within the Commonwealth of Virginia with a primary focus serving his long-established clients within Northern Virginia. He serves as roadway design program manager and overall Quality Control Manager for our Herndon office as well as project manager for major transportation design projects. He leads teams of multidiscipline staff through all stages of projects including, public outreach, traffic, bridge, drainage and stormwater management (SWM), environmental permitting, noise analysis, geotechnical, and landscape design drawing support from staff in all JMT offices and associated sub-consultants. Recent assignments have included complex, multidisciplinary projects on interstate and major roadways such as the pavement rehabilitation D-B projects and have included multiple Design-Build roles, both as a representative of the owner and as key staff on the Design-Build team. He prepared Special Provisions and similar documents for new and site-specific needs including adaptions for the VDOT 2016 Specifications. Mr. Reed has led Value Engineering teams to produce innovative and cost-effective solutions for transportation projects and conducted Risk Assessment workshops from both the owner's and contractor's viewpoints.

Parsons, Senior Project Manager/Design Director; 2003– 2012. Served as senior project manager leading all facets of the design of transportation projects for many local clients including VDOT, FHWA-EFLHD, Fairfax County DOT, and for many local municipalities and counties. Design projects in Northern Virginia have included interchanges on interstates and limited access highways, numerous intersection reconstructions, and road widening projects. He has led the design over 20 projects along the Route 7 corridor including 7 transportation projects within a 5-mile radius of the project. Specific projects have included working with the Town of Leesburg and other stakeholders along Route 7 and Battlefield Parkway. He was responsible for the conduct of all aspects of his projects including quality control, administration, risk assessment, safety, management of multiple disciplines, negotiation of contracts and subcontracts, as well as financial and schedule controls. Mr. Reed also served as the Design Manager /Assistant Project Manager for the joint venture helping VDOT to oversee the design and construction of tunnels and associated roadways in the Hampton Roads District. Mr. Reed led roadway designs conforming to VDOT format using GEOPAK and MicroStation, designed complex maintenance of traffic plans, prepared signal plans, and coordinated geotechnical, structural and bridge designs. He personally led in concept development, closely directed final designs, and provided detailed SWM and hydrologic and hydraulic designs for most of his projects. Mr. Reed's experience encompassed the planning and design of complex utility services, including communications (FO and cable), electrical distribution, water supplies, and gas lines.

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:

Rensselaer Polytechnic Institute, Troy, New York/ BS/1972/Civil Engineering
Rensselaer Polytechnic Institute, Troy, New York/ ME/1973/Civil Engineering (Transportation)
Kentucky College of Engineering – Continuing Education/1976 & 1979), Engineering Economics
Pennsylvania State University – Continuing Education/1977 & 1991), River Mechanics & Stormwater

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

1988/Virginia Professional Engineer/0402-018550 (also PE in PA (1975), DE, NJ, NC, & MD)
2014/ATTSA-VDOT Advanced Work Zone Traffic Control/Verification # 072414008
2015/VDOT Guardrail Installation, Replacement and Repair (GRIT)/ Cert. # ISP-1006150-16
2006 /Certified Project Manager/72903

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

1. *Note your role, responsibility, and specific job duties for each project, not those of the firm.*
2. *Note whether experience is with current firm or with other firms.*
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.

Route 7-15 Widening (Leesburg Bypass), *Town of Leesburg, VA* **(DESIGN-BUILD)**
(VDOT Owner's Representative/D-B Engineer Consultant)

Name of Firm:	Parsons	**Project Role:**	Project/Design Manager
Beginning Date:	07/2009	**End Date:**	12/2012

Specific Responsibilities: Project and Design Manager to widen the southeast quadrant of the bypass around Leesburg, Virginia. This project included modifications to two crossings of Tuscarora Creek, two interchanges, provided a grade-separated overpass at the Sycolin Road intersection, and designed trail relocation and new connections for the crossing of the W&OD Trail. Led design efforts including roadway and drainage design (including hydraulic modeling for stream crossings), configuration of bridges and retaining walls, and developed a full TMP. Documented and conducted VDOT's Risk Analysis Workshop. A portion of the project, the Sycolin Road Overpass, was split from the main project and developed as a D-B with Mr. Reed assisting in preparing and advertising the D-B project for VDOT. Provided design QC and conducted Public Hearing. Project roles similar to this project included, interchange design, structural design, drainage and stormwater design, relocation of utilities, detour traffic analysis for road closure during construction, and all associated multi-discipline project management functions including multiple subconsultants.

Project Relevance: The $3.5M (design) Leesburg Bypass design project included design with the Tuscarora Creek watershed, two similar interchanges, connections to the W&OD trail, ROW design, and Public Hearing within the Town of Leesburg, this project included design of interchange and road widening on a heavily travelled highway as well as relocation of water, sewer, and overhead utility lines, and maintenance of traffic analysis. Mr. Reed was key to coordination for W&OD Trail with NVRPA and designing in proximity to Virginia Energy facilities. Other key features included retaining walls, noise walls, and SWM facilities. His expertise and knowledge of Loudoun County conditions (both geological and political), and the Route 7 area will be crucial for successful completion of this project.

Jones Branch Connector, *Fairfax, VA*

Name of Firm:	Johnson, Mirmiran & Thompson	**Project Role:**	Project Manager
Beginning Date:	01/2013	**End Date:**	Ongoing (Est completion 2019)

Specific Responsibilities: Project Manager for the $50 M project to extend the Jones Branch Connector (JBC) across I-495. Design was managed by FCDOT with the construction advertised and overseen by VDOT. Easily one of the most complex projects undertaken by FCDOT, the project will widen a recently-completed access ramp to the Express Toll Lanes in Tysons and connect across the Capital Beltway to a new Metro Station along Route 123. Although the total project length is only a little over ½ miles, it must coordinate with many stakeholders including VDOT, MWAA, WMATA, FHWA, the I-495 Express Lanes concessionaire, and includes major adjacent property owners such as the Hilton Headquarters and on-going development for the Capital One Headquarters campus. The corridor, is also providing upgrades for major utilities such as Washington Gas and Dominion Energy. The project incorporates four conventional lanes, on-street bike lanes along with wide, urban sidewalks with landscaped buffers and pedestrian amenities. The median of the roadway and bridges is being designed to allow the future addition of the Tysons Connector which can be either a dedicated bus lane system or a street car system.

Project Relevance: Project relevancy to this project included design of road widening and bridge construction over a heavily travelled highway, stream hydraulics, and relocation of water, sewer, and overhead utility lines, maintenance of traffic analysis, and all associated project management functions. He led all QC/QA for the design of this project including SWM, utilities, aesthetics, and structures. Similar to the shared effort between the Town of Leesburg, Loudoun Co. and VDOT needed for this project; the JBC project is successfully partnering between VDOT and a local transportation agency (FCDOT); in addition, many adjacent landowners are actively redeveloping in conjunction with the roadway construction. The project was advertised in late 2016 and construction is now underway. JMT is also providing construction phase services including shop drawing reviews and preparing responses for RFI's. (LANE is a subcontractor).

VDOT, I-64, I-64/I-264 & I-264 Pavement Rehabilitations, *Norfolk & Virginia Beach, VA* **(DESIGN-BUILD)**

Name of Firm:	Johnson, Mirmiran & Thompson	**Project Role:**	Owner's D-B Design Manager
Beginning Date:	12/2014	**End Date:**	03/2016

Specific Responsibilities: Mr. Reed served as the owner's Design Manager leading design reviews, development of Design Exceptions, and document control overseeing three simultaneous D-B projects providing major pavement rehabilitation for deteriorating interstates in the Hampton Roads District; LANE was one of the prime Contractors. He served as the VDOT HR L&D Division representative insuring design consistency and overseeing quality of designs for paving, traffic control, drainage, barrier and guardrail modifications as well as Document Control services for the projects using CADAC. He evaluated change orders and contract modifications in consultation with all levels of VDOT staff. He was responsible for coordinating stringent MOT requirements between VDOT, contractors and the cities. He represented VDOT L&D at Construction meetings and was responsible for Design Exception and Waiver development.

Project Relevance: These projects are examples of vital, complex, high-visibility, successful, D-B projects addressing many aspects of design policy and their relevance within the time-critical D-B environment. As part of the on-going partnering on these projects, Mr. Reed has been able to establish a professional working relationship with key members of the LANE Team helping to deliver these projects. The experience Mr. Reed gained on these projects is highly advantageous to the Route 7 Battlefield Parkway Project design and construction.

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. Reed is not required to be on site full time.**

ATTACHMENT 3.3.1(a)

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title: **BOB CROSS, CONSTRUCTION MANAGER**

b. Project Assignment: **CONSTRUCTION MANAGER**

c. Name of all Firms with which you are employed at the time of submitting SOQ's. In addition, please denote the type of employment (Full time/Part time): **THE LANE CONSTRUCTION CORPORATION (FULL TIME)**

d. Employment History: With this Firm **11** Years With Other Firms **30** Years

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

The Lane Construction Corporation – 2006 – Present: Mr. Cross is a Construction Manager with over 40 years of experience in the heavy construction industry including both roadway and site development construction. He performs constructability reviews of design drawings; develops and maintains project schedule, and coordinates contractor/ subcontractor activities. Oversees all Quality Control activities on the project site to include both materials used and work performed and ensures that these meet contract requirements and the "approved for construction" plans and specifications.

Moore Brothers – 2005 – 2006: Mr. Cross was General Superintendent on the I-66 HOV project between Route 234 and the Prince William Parkway interchanges. Supervised all aspects of construction including highway widening, geotechnical work, hydraulics, hydrology and erosion control, permitting, and utility coordination. Additionally, he performed quality control activities to ensure contract requirements were met and that approved for construction plans and specifications were met.

Archer Western Contractors – 2003 – 2005: Mr. Cross was General Superintendent on the Springfield Interchange Project, Phases VI & VII. He performed constructability reviews of design drawings; developed and maintained project schedule; coordinated contractor and subcontractors' activities. He supervised all aspects of construction including quality control assessments and measures.

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:
Northern Virginia Community College, Annandale, VA / Coursework
Langley High School, McLean, VA / 1972

f. Active Registration: Year First Registered/ Discipline/VA Registration #: **N/A**
Virginia DEQ RLD Certification, Expiration: 1/11/2019; ESCCC 3-00641, Expiration 3/22/2022

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

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

* 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)**
Name of Firm:	The Lane Construction Corporation	**Project Role:**	Construction Manager
Beginning Date:	06/2014	**End Date:**	08/2017

Specific Responsibilities: As the Construction Manager on this $39M D-B project, Mr. Cross was responsible for managing the entire construction process. He coordinated subcontractors' schedules, created progress schedules to maintain cost-effectiveness, and communicated effectively with quality control for inspections and daily routines. He was responsible and accountable for planning, scheduling, cost, D-B conformance and quality control (QC). He coordinated with and monitored contract progress with VDOT and subcontractors (including adherence to contractual requirements and specifications), and oversaw the overall safety and quality control programs.

Project Relevance: The I-66/Route 15 Interchange Reconstruction project (the first DDI in Northern Virginia) involved reconstructing the interchange of U.S. Route 15 (James Madison Highway) over Interstate 66 (I-66). Similar to the proposed Route 7 & Battlefield Parkway Interchange project, this project included, roadway widening, bridge demolition and construction, utility relocation, right-of-way acquisition, sign structures, public involvement, QA/QC, and overall project management.

VDOT, I-495 Express Lanes, *Fairfax County, VA*			**(DESIGN-BUILD)**
Name of Firm:	The Lane Construction Corporation	**Project Role:**	Construction Manager/Superintendent
Beginning Date:	12/2009	**End Date:**	11/2012

Specific Responsibilities: As the Construction Manager/Superintendent on this project, Mr. Cross 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. Mr. Cross devised and implemented hazard analysis and safety procedures for crews and equipment, provided training for job engineers assigned as subordinates, and worked with the designer and owner to ensure materials used and work performed met contract requirements, design plans, and specifications.

Project Relevance: This $100 million Segment, Area 1, of the I-495 Express Lanes D-B Project, encompassed the removal and replacement of 15 bridges, widened the Inner and Outer Loop of I-495 from North of Springfield to Route 50. Mr. Cross was responsible for the construction of the toll plazas at Braddock Road and Route 50, in addition to the widening and reconstruction elements of main roads including Route 236, Gallows Road, Braddock Road and a section of Route 50, all of this work was performed with ongoing traffic. Similar to the proposed Route 7 & Battlefield Parkway Interchange project the I-495 Express Lanes project's scope of work included extensive MOT, bridge/structure replacement, environmental, geotechnical, utilities, roadway widening, hydraulics, transportation management plan, survey, QA/QC, ITS, safety and public involvement/relations.

Overall the I-495 Express Lanes project comprised the construction of two new lanes 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 and the replacement of more than $260M of aging infrastructure, including more than 50 bridges and overpasses in total.

VDOT, I-66 Roadway Widening, *Prince William County, VA*

Name of Firm:	Moore Brothers	**Project Role:**	Construction Manager
Beginning Date:	7/2005	**End Date:**	11/2006

Specific Responsibilities: As Construction Manager, Mr. Cross supervised all aspects of construction for this major project which included roadway widening, bridge reconstruction, geotechnical work, hydraulics, hydrology, erosion control, permitting, and utility coordination. In addition, he made recommendations for means and methods of construction budgets and personnel issues. Mr. Cross supervised structure construction that included bridges, retaining walls and shoring for support of excavation.

Project Relevance: This $37 million project involved a 4-mile reconstruction and widening of the existing I-66 interstate highway from Route 234 business to Route 234 bypass, this project widened east and west bound of I-66, some of the scope of work included rebuilding the ramps at Route 234 and the 234 bypass. This work required numerous traffic shifts, placing barriers and maintaining traffic at all times. Additionally, final paving was done during the night using a complete detour of first west bound I-66 and then east bound I-66. Mr. Cross and his team designed and implemented the detour to use Route 29 at night and keep traffic flowing. Mr. Cross was given an award by VDOT for this innovative idea. Similar to the proposed Route 7 & Battlefield Parkway Interchange project this project included bridge construction, MOT, roadway widening, utility relocation, public involvement, QA/QC, overall project management.

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. **Current Assignment:** Between projects **Role:** Construction Manager **Duration of Assignment:** Mr. Cross will be available onsite full time at the start of construction for the Route 7 and Battlefield Parkway Interchange project.

ATTACHMENT 3.3.1(a)

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title: **DAVID MALINOSKI, PE, PROJECT ENGINEER**

b. Project Assignment: **LEAD UTILITY COORDINATION MANAGER**

c. Name of all Firms with which you are employed at the time of submitting SOQ's. In addition, please denote the type of employment (Full time/Part time): **JOHNSON, MIRMIRAN & THOMPSON (FULL TIME)**

d. Employment History: With this Firm **4** Years with Other Firms **34** 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):

Johnson, Mirmiran & Thompson, Associate – March 2014 – Present: Mr. Malinoski manages utility coordination and roadway design services for design-build and municipal transportation projects from JMT's Richmond office. He serves as the lead utility coordinator working with utilities and engineers to identify and mitigate utility conflicts, develop cost estimates and schedules, and provide construction phase support for utility issues. He also manages a multi-discipline team providing design-build roadway design and construction services for a major highway.

Stantec (Greenhorne & O'Mara), Project Manager; 2003 – 2014: Mr. Malinoski served as senior utility engineer leading coordination and design services for design-build and municipal transportation projects. Assignments included roles on complex interstate and major highways requiring working with utilities and designers to identify and resolve utility conflicts. He was the lead engineer providing utility field inspection services for an on-call contract with VDOT. He provided planning and design for the relocation and extension of water, sewer, telecommunication facilities.

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:
BS/Civil Engineering/Northeastern University/1978

f. Active Registration: Year First Registered/ Discipline/VA Registration #:
1998/Registered Professional Engineer/0402031971
2015/Advanced Work Zone Traffic Control #021315012

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

(List only three (3) relevant projects* for which you have performed a similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated.)
* On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.

Route 3 Widening, *Culpeper, VA* **(DESIGN-BUILD)**

Name of Firm:	Johnson, Mirmiran & Thompson	**Project Role:**	Deputy Design Manager and Utility Relocation Coordinator
Beginning Date:	03/2014	**End Date:**	10/2017

Specific Responsibilities: Mr. Malinoski was responsible for coordinating the relocation of the utilities. The project involved widening approximately 5 miles of 2-lane minor arterial roadway to a divided 4-lane roadway. Utilities impacted by the project included overhead electric and telephone, gas distribution lines, gas transmission pipelines and multiple underground fiber optic cables. Tasks performed to date include conflict analysis, review of prior rights and determination of cost participation, conducting utility field inspection meetings. Additional tasks included identification of easement needs and obtaining easement documents from the utility companies for new easements to be acquired. Mr. Malinoski was also responsible for reviewing relocation plans and estimates, monitoring relocation progress, review of progress and final billings and also entering utility data into VDOT's RUMS database. Additional roles included leading multi-disciplinary team of staff and consultants to deliver roadway plans and construction support services.

Project Relevance: This long linear project required acquisition of right of way in phases to accommodate the required utility relocation ahead of construction. Early identification of utility easement needs allowed acquisition to proceed and opened areas that allowed the utility relocation to be accomplished in phases. Numerous overhead and underground utilities running parallel along the project corridor were impacted by proposed improvements.

Odd Fellows Road Interchange, *Lynchburg, VA*			**(DESIGN-BUILD)**
Name of Firm:	Johnson, Mirmiran & Thompson	**Project Role:**	Utility Relocation Manager
Beginning Date:	03/2015	**End Date:**	08/2018 (Est. completion date)

Specific Responsibilities: Mr. Malinoski is responsible for coordinating utility relocations and design of water and sewer relocations along the widening of this 2-lane roadway and construction of a new interchange. Utilities impacted include water, sewer, gas transmission and distribution lines, overhead electric transmission and distribution conductors, telephone, cable TV and long-distance fiber optic cables. Over 2000 LF of 12-inch steel gas transmission pipe is being relocated for the interchange construction. His tasks included analyzing utility conflicts, conducting multiple utility field inspections, coordinating the relocation of existing utilities, reviewing utility relocation plans and estimates and maintaining utility data in VDOT's RUMS database.

Project Relevance: Several utilities will be relocated concurrently with construction. Roadway work is coordinated with the utility relocations and the schedule adjusted to allow work in areas where minimal impact to the existing utility facilities will occur. Numerous overhead telecommunication facilities are dependent on the owner of the poles to relocate in a timely manner to allow time for the transfer of cables within the project schedule.

I-495 HOT Lanes, *Fairfax, VA*			**(DESIGN-BUILD)**
Name of Firm:	Stantec (Greenhorne & O'Mara)	**Project Role:**	Utility Project Manager
Beginning Date:	2007	**End Date:**	2012

Specific Responsibilities: Mr. Malinoski was responsible for coordinating utility relocations and design of water and sewer relocations for 14 miles of interstate roadway widening that added high occupancy toll lanes. Tasks included analyzing utility conflicts, conducting multiple utility field inspections, coordinating the relocation of existing utilities, and reviewing utility relocation plans and estimates. Managed design team that prepared relocation designs for water and sewer relocations that included 12-inch and 16-inch ductile iron waterlines on three new bridge attachments and 20-inch PCCP relocation in conflict with bridge pier construction. New bored crossings were designed to replace existing gravity sewers in conflict with the roadway widening. An 1800 LF duct bank was designed for telephone and CATV relocation.

Project Relevance: Utility relocations were accomplished in phases ahead of proposed construction. This allowed the utilities to focus on prioritized segments instead of the entire project. The relocations will need to be coordinated with bridge and retaining wall construction, storm water management, lighting and traffic control systems. Utility easements needed for relocation will be identified and prioritized for early acquisition.

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. Malinoski is not required to be onsite full time.**

ATTACHMENT 3.4.1(a)
LEAD CONTRACTOR WORK HISTORY FORMS

ATTACHMENT 3.4.1(a)

LEAD CONTRACTOR - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime design consulting firm responsible for the overall project design.	c. Contact information of the Client or Owner and their Project Manager who can verify Firm's responsibilities.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement.(in thousands)
					Original Contract Value	Final or Estimated Contract Value	
Name: **495 Express Lanes** Location: **Fairfax County, VA (DESIGN-BUILD)**	Name: **HNTB**	Name of Client./ Owner: **VDOT** Phone: **540.829.7500** Project Manager: **John Lynch, PE** Phone: **540.829.7512** Email: **john.lynch@VDOT.Virginia.gov**	**12/2012**	**11/2012**	**$1,346,560**	**$1,481,670**	**$642,000**

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

Similar Scope of Work:

- Design-Build
- Roadways
- Bridges/Structures/Retaining Walls/Soundwalls
- Environmental
- Geotechnical
- Extensive MOT
- Right-of-Way
- Traffic Control Devices
- Hydraulics and Stormwater Management
- Intelligent Transportation Systems
- Transportation Management Plan
- Utility Relocation
- Stakeholder Coordination
- Public Involvement/Relations
- QA/QC
- Lighting
- Survey
- Construction Engineering and Inspection
- Overall Project Management

Personnel on Project:

Bob Cross (LANE) David Malinoski, PE (JMT)
Victor Rohr (LANE) Paul Rash (LANE)

PROJECT SCOPE

Construction of four new managed/HOV traffic lanes (two in each direction) in the median of the existing lanes on the Capital Beltway. Work included the reconstruction of ramps, heavy maintenance of traffic effort, shoulder reconstructions, interchanges, frontage roads, bridge over and underpasses and bridge widening's, and pedestrian crossings. The Project encompassed the replacement of more than $260M of aging infrastructure, including 12 interchanges and 58 bridges. Construction of the Project required close coordination with VDOT, MWAA, WMATA, local jurisdictions, businesses, community associations, and the traveling public. As a 35% member of the Fluor-Lane LLC CJV, LANE provided nearly all of the project supervision and workforce, plus all asphalt paving as a subcontractor to the CJV. *Only LANE of Fluor-Lane LLC will be a team member on the Route 7 and Battlefield Parkway Interchange project*.

RELEVANT PROJECT ELEMENTS TO ROUTE 7 AND BATTLEFIELD PARKWAY INTERCHANGE

Use of Innovative Design Solutions: Numerous ATCs, combined with reduction in the originally approved Record of Decision regarding ROW and length of the project, ***saved VDOT over $500 million in overall project cost***.

Intersection/Interchanges: The Express Lanes project has similar scope elements to the proposed Route 7 and Battlefield Parkway Interchange project including the major construction of grade separated intersections, box culvert extensions, ITS, shared-use paths, public outreach, shoulder strengthening, work in high volume ADT's, sound barriers, complex MOT schemes and major bridge/ramp construction. 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.

Limiting Impacts to the Traveling Public/Businesses/Communities: A key challenge was accommodating extreme volumes of commuter, residential and commercial vehicular traffic. The contract required the project to maintain the existing traffic/pedestrian access during construction; affecting every phase of the planning, design and construction of the Express lanes, feeder roads and shared use paths. By conducting extensive traffic studies and through close coordination with VDOT and the local jurisdictions, our team produced a number of innovative designs, carefully planned lane shifts, and construction phasing sequences that helped to minimize disruption during construction.

Effective Communication Strategies with Business Owners and other Key Stakeholders: More than 1,000 public outreach meetings were conducted and, in coordination with VDOT, the Team kept the public involved through various media methods: project website, routine newsletters, and brochure mailings to residents and business. One example of the success of this approach was the closure of South Bound I-495 Bridge at Chain Bridge Road, Tysons Corner. The planned demolition and reconstruction of the new bridge had the potential to disrupt traffic for more than 100,000 residents/business employees area. The team blanketed the area with early notification of the weekend closure/detour options using the project website, media announcements, email, telephone calls, postcards, and door-to-door outreach. When the work was completed, not a single complaint was received from businesses, motorists, or area residents.

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

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

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

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

Environmental Compliance: The team performed a hydrologic study of existing drainage structures and their replacement with properly sized infrastructure that reduced stormwater impacts to the surrounding environment erosion, sediment, and runoff control to prevent impacts on local drainages, wetland and stream impact mitigation through purchase of mitigation credits, timing of tree removal to prevent impacts on nesting birds, field personnel trained to recognize endangered species and to take appropriate protective action, noise impact mitigation, proper storage/handling of hydrocarbons and hazardous materials to prevent soil and surface water pollution, to name a few.

Successfully Delivering Project Ahead of Time: **The project was completed one month ahead of schedule.** The team worked hard to expedite both the design and construction schedules which resulted in early completion.

Safety: The 495 Express Lanes project has been the recipient of numerous awards including a safety award for more than 5,000,000 man-hours without a lost time incident 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: **Route 29 Solutions (Rio Road)** Location: **Albemarle County, VA (DESIGN-BUILD)**	Name: **RK&K**	Name of Client./ Owner: **VDOT** Phone: **434.305.0348** Project Manager**: Dave Covington** Phone: **434.422.9373** Email: **Dave.Covington@vdot.virginia.gov**	**10/2017**	**7/2017**	**$116,746 (Contract)** **$40,000 (Rio Road)**	**$128,700* (Contract)** **$48,000* (Rio Road)** **Owner initiated changes to scope and incentive bonus.*	**$28,800 (Rio Road)**

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

Similar Scope of Work:

- Design-Build
- Roadways
- Interchange
- Bridges and Structures
- Environmental
- Geotechnical
- Right-of-Way
- Maintenance of Traffic
- Traffic Control Devices
- Intelligent Transportation Systems
- Transportation Management Plan
- Utilities
- Stakeholder Coordination
- Public Involvement/Relations
- QA/QC
- Survey
- Landscaping
- Hydraulics
- Construction Engineering and Inspection
- Overall Project Management

Personnel on Project:

Victor Rohr (LANE) Paul Bacon (LANE)
Paul Rash (LANE) Richard Mayo (LANE)

PROJECT SCOPE

The Route 29 Solutions Contract contained three project elements designed to improve safety and increase mobility along the Rt. 29 corridor in Charlottesville and Albemarle County. The three elements were: Route 29 and Rio Road Grade Separated Intersection; Rt. 29 Widening from four lanes to six lanes from Polo Grounds Rd. to Towncenter Dr.; and Berkmar Dr. Extension of 2.3 miles on new alignment from Hilton Heights Rd. to Towncenter Dr. This work History Form focuses on the Rio Road element. The Rio Road Intersection element provided a grade separation to move traffic more efficiently through the intersection of Rt. 29 and Rio Road, one of the most congested intersections on the corridor. Four through lanes, two in each direction, were constructed underneath Rio Road to carry Rt. 29 north and southbound. Four Local lanes on the outside of the through lanes were also constructed to allow for local access to and from Rt. 29 and Rio Road. The Contract was held by LANE/Corman JV. LANE held a 60% share of the team and was the Managing Partner. The JV was integrated meaning both LANE and Corman performed all self-perform facets of the work based on the team percentages.

Route 29 and Rio Road Interchange

RELEVANT PROJECT ELEMENTS TO ROUTE 7 AND BATTLEFIELD PARKWAY INTERCHANGE (RIO ROAD)

Use of Innovative Design Solutions: Our Team designed and constructed a unique retaining wall system to create the new through traffic Rt. 29 underpass of Rio Road which created the grade separation. The retaining walls were steel piling, temporary wood lagging, tie-backs and a structural concrete CIP face. The piling and tie-backs were installed under traffic at night, augering vertical shafts up to 35 ft. deep, set the pile, encased the bottom 3rd in concrete, the upper 2/3's in flowable fill and capped the holes with steel plates so traffic could operate un-interrupted during the day and at peak flow times. Retention tie-backs were also installed at this time. The Rio Rd. bridge abutments were constructed in the middle of Rt. 29, before traffic lane were detoured outside of the underpass work. During the day, the abutment worksite was protected by steel road plates to maintain unrestricted traffic capacity. At night, the workforce closed 2 lanes of traffic, removed the plates and constructed the abutments. This sequence and innovative construction techniques saved the project more than a month of traffic detours and facilitated the early completion of Rio Road.
Intersection/Interchanges: Our Team performed the structural engineering of the Rio Road Grade Separated Intersection using an innovative design method that had never been constructed in Virginia. The abutments were integrally placed on top of the soldier pile retaining wall to minimize the footprint of the bridge and allow traffic on Rt. 29 to remain open throughout the construction process. The bridge superstructure was designed to act as a strut to support the retaining walls horizontally while also supporting truck and roadway traffic vertically. This design concept was chosen because of the limited amount of space in the intersection and the requirement to keep traffic open at all times during the project. The bridge and retaining walls were built in the congested intersection without acquiring additional right-of-way in an extremely tight schedule.
Limiting Impacts to the Traveling Public/Businesses/Communities: The innovations discussed above significantly contributed to the Team's ability to deliver the project in advance of the completion date. In such a tight, urban environment, this reduction in schedule effectively limited temporary and permanent impacts to the traveling public, businesses and the surrounding communities. In addition, the extremely aggressive requirement to complete the grade separation in 103 days was completely surpassed by the this D-B Team's ingenuity, allowing this phase of the work to be completed in 59 days.
Effective Communication Strategies with Business Owners and other Key Stakeholders: Early outreach contacts with the public were established through mailings, a project website, public meetings and social media. The team worked closely with VDOT to ensure timely and accurate information was provided for the work upcoming. Our PR manager worked with and through VDOT and the Project Advisory Panel to disseminate accurate information, defuse public issues early and to ensure the information disseminated was clear, concise and accurate. We employed a rapid response strategy to any and all issues to make certain no one was misinformed and to stop "rumor mill" inaccurate information from being detrimental to the Project.
Success in Minimizing Utility Impacts/Coordination of Complex Utility Relocations: Our Team held utility coordination meetings with all affected owners. Early in the process we shared design concepts, schedules, MOT Plans, and ROW processes and updates; we requested the utility owners input/advice as to how best to avoid and/or relocate their facilities. At various times our work crews performed a portion of their work to assist with on time delivery and to control costs.
Bridges/Structures: Rio Road bridge was a single span, overpass of the new Rt. 29 through-lanes. The bridge was constructed with concrete box beams with a cast in place deck on top. The deck is 3 times wider than long and was poured in 3 placements. As previously described, the construction was fast-tracked with most of the substructure constructed under traffic. The abutments were supported on the same pile that supported the retaining wall. The bridge beams also acted as a strut to support the retaining wall and eliminated the need for retention tie-backs.
Roadway: The project required significant roadway design for several different roadway types and typical sections with a mix of roadway rehabilitation, widening, and new construction.
MOT: MOT on the Rio element was critical because the contract required all existing lanes to be maintained during the day except for a 103 days in the summer. The WZTIA was used to predict the impacts associated with detouring Rio's left turn and through movements in this interim period and included two temporary U-turns on Rt. 29 to improve operations. The TMP included re-timing and phasing of Rt. 29 corridor signals to facilitate the modified traffic patterns, development of queue lengths at the U-turn locations and the use of detours to reduce the number of U-turning vehicles. The TMP included outreach in conjunction with VDOT to publicize the detours and re-timed signals.
Environmental Compliance: Environmental design and permitting included: wetland delineations and stream assessments; determination of wetlands and stream compensatory mitigation requirements; secured rare, threatened and endangered species clearances; and secured numerous other clearances and permits.
Successfully delivering project ahead of time: **The Rio Road Segment Interim Milestone Final Acceptance Completion was achieved 44 days early. The entire Contract was completed 3+ months (101 days) ahead of schedule.**
Safety: The project included design and construction of bike lanes and multi-use paths, increasing safety for these users. On Rio Road, separating the local and through traffic at this intersection, which had a history of high crash rates, improved safety.

EVIDENCE OF PERFORMANCE

"LANE/CORMAN and RK&K did an excellent job of selecting the right design for a unique need, designing the bridge quickly to meet the needs of an aggressive schedule, working closely with VDOT to provide solutions for long-term maintenance and providing high quality design and construction." —David Covington, PE, Regional Manager, VDOT
"This project brought something that you cannot pay for: Good will … This should become the default model for community engagement." —Liz Palmer, Chair, Albemarle County Board of Supervisors
"The partnership between VDOT and LANE/CORMAN, as well as the cooperation of Albemarle County, the nearby businesses and neighborhoods and the community at large, were instrumental in the success of this project. Without the involvement of the businesses and the community – and their understanding for the inconveniences they experienced – we would not have attained this successful outcome." — Charles Kilpatrick, VDOT Commissioner

ATTACHMENT 3.4.1(a)

LEAD CONTRACTOR - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime design consulting firm responsible for the overall project design.	c. Contact information of the Client or Owner and their Project Manager who can verify Firm's responsibilities.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement.(in thousands)
					Original Contract Value	Final or Estimated Contract Value	
Name: **I-66/Route 15 Interchange Reconstruction** Location: **Prince William County, VA (DESIGN-BUILD)**	Name: **RDA**	Name of Client./Owner: **VDOT** Phone: **703-259-2960** Project Manager**: Christiana Briganti-Dunn, P.E., CCM** Phone: **703-259-2960** Email:**christiana.briganti@vdot.virginia.gov**	**8/2017**	**8/2017**	**$36,194**	**$39,650**	**$20,200**

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

Similar Scope of Work:

- Design-Build
- Roadways
- Interchange
- Bridges/Structures
- Environmental
- Geotechnical
- Right-of-Way
- Maintenance of Traffic
- Traffic Control Devices
- Intelligent Transportation Systems
- Utilities
- Stakeholder Coordination
- Public Involvement/Relations
- QA/QC
- Survey
- Hydraulics
- Stormwater Management
- Retaining Walls
- Construction Engineering and Inspection
- Overall Project Management

Personnel on Project:

Bob Cross (LANE)

PROJECT SCOPE

This D-B project, located in Prince William County, VA consisted of reconstructing the interchange of U.S. Route 15 (James Madison Highway) over Interstate 66 (I-66). The project included widening U.S. Route 15, widening VA Route 55 (John Marshall Highway/Washington Street), construction of a new service road, and replacement of northbound and southbound bridges carrying Route 15 over I-66. Additionally the project reconstructed the I-66/Route 15 interchange to relieve congestion, enhance public safety, operations and capacity, and accommodate forecasted traffic demand in the project area. The project reconstructed the 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.

RELEVANT PROJECT ELEMENTS TO ROUTE 7 AND BATTLEFIELD PARKWAY INTERCHANGE

Use of Innovative Design/Construction Solutions: During the RFP stage, the LANE Team proposed a DDI (versus the original flyover concept). This innovative interchange reduced ROW and project costs while improving the LOS. Additionally, post-award the team implemented a new MOT scheme which involved building the northbound bridge first and placing all traffic on this bridge while the other bridge was being constructed. This allowed us to eliminate a phase of demolition and new bridge construction. LANE removed both existing bridges at the same time and constructed the new southbound bridge out of traffic.

Intersection/Interchanges: LANE rebuilt the intersection of Route 15 and Route 55 under live traffic. The work was planned and phased in such a way that no interruptions to the traveling public occurred.

Public Involvement/Public Relations: In addition to meeting and coordinating with the public, LANE also met with various emergency responders and local school bus drivers, to ensure they have an understanding of the changing traffic patterns and configurations. We anticipate similar coordination with the public on the Route 7 and Battlefield Parkway Interchange project.

Limiting Impacts to the Traveling Public/Businesses/Communities: LANE completely shut down the interchange on a Friday night to switch from the existing traffic pattern to the DDI. This was suggested by VDOT and we designed the detour with their help. The work was done in a 12-hour period overnight with very little impact to the public. This involved coordinating with all parties involved. Additionally a key to LANE's success of the project was pedestrian access/safety during MOT operations. Through construction and implementation along the Route 15 and Route 55 corridors this helped guide our approach in dealing with the multiple trails impacted or reconstructed.

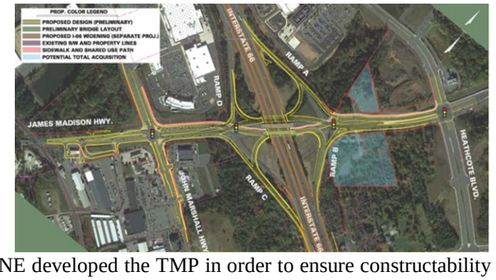
Effective Communication Strategies with Business Owners and other Key Stakeholders: The LANE Team held several town meetings and prior to the opening of the DDI which included printed fliers (also distributed to several local businesses in Haymarket), demonstrations, and videos explaining the changes to the traffic pattern.

Success in Minimizing Utility Impacts/Coordination of Complex Utility Relocations: LANE assigned one of our project engineers to coordinate with the various utilities. This helped with the coordination of the work and with the relocations.

Success in Minimizing ROW: By introducing a DDI to this interchange, LANE was able to condense ROW by reducing impacts from 22 parcels to 16 parcels and eliminating two total parcel takes – saving VDOT over $500K.

Bridges/Structures: There were two new bridges constructed and two existing bridges demolished.

Roadway: The I-66/Route 15 Interchange Reconstruction project included widening of heavily traveled roadways through a tightly constrained corridor.



MOT: Similar to the proposed project, the I-66/Route 15 Interchange Reconstruction project required a complex TMP to construct the project in a constricted work zone with high traffic volumes and pedestrian mobility. LANE developed the TMP in order 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 on the Route 7 and Battlefield Parkway Interchange project to ensure corridor safety and response time.

Environmental Compliance: Numerous environmental issues (outside the Team's control) held up the project for nearly a year. Despite this setback, the Team was able over recover the lost time and still complete the project on time.

Successfully Delivering Project On Time: The project was completed on time.

Safety: Daily and weekly safety meetings were held. There were few safety issues to the public and to our workers. This was a testament to the care taken especially due to the high volume of pedestrian and vehicular traffic in this area. This project received LANE's annual award for the best safety record for 2016.

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 LANE Team assisted VDOT in bringing consensus to the political stakeholders representing the Commonwealth, 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 DDI.

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: **Fairfax County Parkway (FCP - Route 286) Extension** Location: **Springfield, VA** **DESIGN-BUILD**	Name: **Cherry Hill Construction, Inc.**	Name of Client: **: Virginia Department of Transportation (Administered by FHWA/EFLHD)** Phone: **703.259.2381** Project Manager: **Tim Brown (FHWA-EFLHD)** Phone: **703.440.9086** Email: **timothy.brown@dot.gov**	**04/2008**	**07/2011 (actual)*(Bob to add explanation of date)**	**$73,756 (Original)**	**$112,416 (Actual) Received significant owner generated contract mod, increasing scope by 25%**	**$11,538 JMT Design Fee**

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

Similar Scope of Work:

- Design-Build
- Roadway/Interchange
- Survey
- Bridges/Structures/Retaining Walls
- Environmental/Permitting
- Geotechnical
- E&SC/Hydraulics/SWM
- Landscaping
- Roadway Lighting/Traffic Control Devices
- MOT/ITS.TMP
- Utilities & ROW
- Stakeholder Coord./Public Involvement
- QA/QC
- CEI & Project Management

Proposed Personnel on Project:

- Bob Reed, PE (JMT)
- Randy Boice, PE (JMT)
- Rodney Hayzlett, PE (JMT)
- Trip Phaup, PE (JMT)
- Mike Leffler, PE (JMT)
- Michael Zmuda, PE, LS (JMT)
- Ian Frost,,CEP, AICP, LEED AP® (JMT)
- Jon Conner, PLA, ALSA, LEED AP® (JMT)

PROJECT SCOPE

The Fairfax County Parkway (FCP) completed a vital 3-mile missing link to I-95 in northern Virginia. This D-B project was highly publicized as critical to the success of the region's BRAC initiative, as it provided the needed highway improvements to address traffic impacts of the U.S. Army relocating 8,500 jobs to the National Geospatial-Intelligence Agency (NGA) Campus East at the Fort Belvoir North Area. JMT was the lead designer for this D-B project. The design included new interchanges at access to the West North Loop Road of the National Geospatial Intelligence Agency facility interior roadway network.

RELEVANT PROJECT ELEMENTS TO ROUTE 7 AND BATTLEFIELD PARKWAY INTERCHANGE

Use of Innovative Design Solutions: During the bidding process, JMT prepared ATCs that improved the overall project design and provided significant reductions in construction costs. The most significant change identified was the "Fullerton Flip". The original design depicted Fullerton Rd. crossing over FCP. JMT was able to revise the profiles for both the FCP and Fullerton Rd. to take FCP over Fullerton Rd. The benefits that raising the grade of FCP brought to the project were: reduced amount of soil/rock excavation; minimized disturbance of contaminated material; reduced the surplus material that resulted in a balanced earthwork project significantly reducing project cost and reduced trucking on local roadways. The project was completed and opened to traffic two months ahead of schedule.

Limiting Impacts to the Traveling Public: JMT addressed traffic safety concerns in and around long-term work zone closures and temporary lane closures through the development of an extensive TMP. JMT also initiated early meetings with utility owners and provided assistance in the development of their plan/estimate submittals by providing design plans and profiles in CAD. There were no project delays related to utility relocations.

Effective Communication Strategies with Business Owners and other Key Stakeholders: A driving factor contributing to the success of this project was the establishment of a formal partnering agreement between the project stakeholders. It was evident from the NTP that the project would be schedule driven but also had to address the goals of the numerous and diverse stakeholders. To address this major project concern, the D-B Team instituted project partnering. Partnering began with formal partnering sessions and continued throughout the design/construction. Bi-weekly partnering or task force meetings were held with all major stakeholders. Representation at the bi-weekly meetings was mandatory and included the FHWA -Eastern Federal Lands Highway Division, VDOT, Fort Belvoir DPW, Fort Belvoir Environmental and Natural Resource Division, NGA, U.S. Army Corps of Engineers-BRAC Integration Office and FCDOT.

Environmental Compliance: The parkway alignment traverses through the EPG and crossed five former firing ranges and testing sites, including three Resource Conservation and Recovery Act sites that had significant groundwater and soil contamination, and stringent Land Use Controls required by an EPA Consent Order to protect human health and the environment. These environmental issues required special coordination with Fort Belvoir environmental staff due to the presence of contaminated soil/groundwater and the possibility of unexploded ordnance on the site, as well as environmental permitting with the U.S. Army Corps of Engineers for the Accotink Creek bridge construction. All environmental impacts were successfully addressed.

Success in Minimizing Utility Impacts/Coordination of Complex Utility Relocations: JMT initiated early meetings with utility owners and provided assistance in the development of their plan/estimate submittals by providing design plans and profiles in CAD. There were no project delays related to utility relocations.

Intersections/Interchanges: Two new interchanges provided access at Boudinot Drive and at the new Barta Road entrance to National Geospatial-Intelligence Agency (NGA) Campus East at Fort Belvoir North Area.

Bridges/Structures: This project included seven new bridges, an interchange, an access road, and an extension of Boudinot Drive. This is one of the first projects in Virginia using AASHTO's LRFD method for bridge design.

Roadway: The project begins at Rolling Road and proceeds southeastward on a new alignment for a distance of approximately 1.5 miles and includes two new interchanges at Boudinot Drive and Barta Road entrance to NGA.

Public Involvement/Public Relations: The D-B Team hosted and attended numerous public outreach events ("Citizen Information" and "Pardon-Our-Dust" meetings) and accommodated public involvement during the course of the project.

EVIDENCE OF PERFORMANCE

The project received awards from several professional organizations including DBIA National and DBIA Mid-Atlantic; Virginia Transportation Construction Alliance; and ACEC local chapters in MD, VA and MW. Members of the Team received a "Star Partner" award for their exceptional dedication, teamwork, and professionalism in support of the project's goals. "I am extremely pleased with the performance of the Contractor and JMT in meeting these challenges and overcoming obstacles that could have seriously impacted the budget and schedule …."- Tom Fahrney (3-25-11) "Impressed with the solutions that were reached to counter the site constraints and the numerous ways the owner/client's expectations were obviously exceeded." - ACEC/MW Judging Panel (1-25-13) "I am amazed at the pace of the Pkwy. Ext. project, and to all those who are involved in any aspect of this project, I want to thank you for all you are doing!"- J. Thompson (Citizen) JMT received the "Star Partner" awards for their exceptional dedication, teamwork and professionalism by NGA & USACE

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: **Port Access Road from I-26 - Exit 218 to New Port Terminal** Location: **North Charleston, South Carolina** **DESIGN-BUILD**	Name: **Fluor-Lane South Carolina, LLC**	Name of Client: **South Carolina Department of Transportation** Project Manager: **Jae H. Mattox, III, PE** Phone: **803-737-1805** Email: **mattoxjh@scdot.org**	**06/2016**	**09/2019**	**$220,700**	**$220,700**	**$5,844 (JMT design fee)**

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

Similar Scope of Work:

- Design-Build
- Roadway
- Survey
- Bridges/Structures/Retaining Walls
- Environmental/Permitting
- Geotechnical
- E&SC
- Hydraulics/SWM
- Landscaping
- Roadway Lighting
- Traffic Control Devices
- TMP
- ROW
- Utilities
- Stakeholder Coordination
- PI/PR
- QA/QC
- CEI

PROJECT SCOPE

JMT is teamed with the Fluor-LANE Design-Build Team, to design and construct the Port Access Road project in Charleston County, South Carolina. The Port Access Road project provides direct access between the former Navy Bases' proposed marine container terminal and I-26 while maintaining adequate service for local, commuter, and commercial traffic. Included in the project's purpose is to safely integrate container terminal traffic with existing traffic; support local and regional planning policies and strategies; and minimize adverse impacts on communities and the environment. The Project consists of the construction of a fully directional interchange on I-26, a Bainbridge Connector Road, the extension of Stromboli Avenue and associated roadway improvements to surface streets to serve the proposed Naval Base Terminal. The design-build scope of work includes roadway, bridge, local road relocation and paving, drainage, existing utility relocations, erosion control, MSE and retaining walls, demolition, and noise barriers.

RELEVANT PROJECT ELEMENTS TO ROUTE 7 AND BATTLEFIELD PARKWAY INTERCHANGE

Use of Innovative Design Solutions: Bridge foundation testing at the project site, located on the former Charleston Naval Complex, revealed a variety of hazardous materials, so the team selected a specific foundation type to reduce risks associated with excavation. The design team provided 3D Modeling using OpenRoads Series 4. This facilitated visualization of the project and impacts in three dimensions, helping to proactively identify issues and address contractor questions.

Limiting Impacts to the Traveling Public: The project construction is adjacent to I-26 traffic, and over active CSX and Norfolk Southern Rail lines; limiting impacts to all these users was an essential project element. Construction noise mitigation strategies were implemented to minimize noise impacts to adjacent residential and business areas. Modular construction was used for precast components of the project, limiting construction duration and impacts.

Effective Communication Strategies with Business Owners and other Key Stakeholders: The project team worked closely with numerous stakeholders to incorporate project needs and communicate impacts. A monthly project update newsletter is distributed and there is a project webpage and Facebook page where citizens can receive project updates. The construction was also timed to accommodate events such as the January 2018 Charleston Marathon, where construction crews created access for runners.

Environmental Compliance: Located in an environmentally sensitive area, the new direct access roadway from I-26 to the port terminal utilized an elevated viaduct to avoid various impediments such as tidal creeks and hazardous material locations. The commitments required from the environmental process are provided to the public on the project webpage to ensure transparency in the NEPA process.

Success in Minimizing Utility Impacts/Coordination of Complex Utility Relocations: The design team tailored the design to avoid utility conflicts whenever feasible. Some conflicts were unavoidable with the urban setting. Early coordination was held with these utility owners in order to expedite utility relocation.

Success in Minimizing Right of Way: Project right of way was purchased by SCDOT prior to award of the Design Build project. The D-B team was successful in keeping project elements within the purchased right of way, as the need for additional right of way would have required significant time and coordination with the Charleston Naval Complex. Geometric design changes and the use of retaining walls were implemented to stay within the right of way. This was facilitated by the use of 3D modeling, where project cuts and fills were accurately represented.

Intersection/Interchanges: The Project consists of the construction of a new fully directional interchange on I-26, a Bainbridge Connector Road, the extension of Stromboli Avenue and associated roadway improvements to surface streets to serve the proposed Hugh K. Leatherman Sr. Terminal in Charleston County, South Carolina.

Bridges/Structures: The project included several new bridges over I-26, railroad tracks, and local roadways. These complex bridges had horizontal curves and numerous railroads, roadways, and utilities that impacted placement of the substructures. The bridge superstructures included curved steel girders, chorded and flared prestressed concrete beams, and flat slabs. The substructures consisted of standard and oversized drilled shafts, pipe pile footings, and pile bents. A multi modal response spectral analysis and nonlinear static (pushover) analysis was performed to determine the seismic demand and verify the seismic performance meets SCDOT Seismic Design Specifications. This complex geometry in a high seismic zone made this a challenging project.

Roadway: The northern end of the project along I-26 is near the North Meeting Street exit and continues to approximately 1,000 feet south of the Spruill Avenue exit. The proposed road will cross over North Meeting Street, King Street Extension, and Spruill Avenue. The alignment turns north as it parallels the western boundary of the former Macalloy site and then crosses Shipyard Creek to connect to the former Naval Base. A local access road will connect Bainbridge Avenue to the main alignment and will follow a route along Shipyard Creek, behind the Charleston Resource Recovery incinerator, and behind a container storage area.

Public Involvement/Public Relations: The F-L Team has worked with SCDOT throughout the design/construction to provide public relations support to the community. The team has held job fairs and promote DBE involvement as well as providing monthly project updates to the surrounding community. The project also has a webpage and a Facebook page to keep the public current on project status.

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: **Jones Branch Connector** Location: **Tysons, VA**	Name: **Archer-Western**	Name of Client: **Fairfax County Department of Transportation** Phone: **703.877.5600** Project Manager: **John Dresser** Phone: **703-877-5812** Email: **Johndresser@fairfaxcounty.gov**	**11/2016**	**03/2019 (est.)**	**$50,000**	**$50,000**	**$4,500**

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

Similar Scope of Work:

- Interchange Design
- Roadway Design
- Survey
- Bridges/Structures/Retaining Walls
- Environmental/Permitting
- E&SC/Hydraulics/SWM/Drainage
- Landscaping
- Roadway Lighting
- Traffic Control Devices/ITSTMP
- ROW/Utility Relocations
- Stakeholder/Developer Coordination
- QA/QC
- Construction Coordination
- Project Management

Proposed Personnel on Project:

Robert Reed, PE (JMT) Randy Boice, PE (JMT)
Trip Phaup, PE, NBIS (JMT)
Jon Conner, PLA, LEED AP (JMT)

PROJECT SCOPE

JMT is providing professional services to help Fairfax County and VDOT complete the proposed **Jones Branch Connector (JBC)**. Easily one of the most complex transportation projects underway by Fairfax County DOT, the project is widening a recently-completed access ramp to the Express Toll Lanes in Tysons and connects across the Capital Beltway to a new Metrorail Station along Route 123. FCDOT managed the design activities for the Virginia Department of Transportation (VDOT); VDOT advertised the project and is overseeing construction.

The project incorporates four conventional lanes, on-street bike lanes along with wide, urban sidewalks with landscaped buffers and pedestrian amenities. The median of the roadway and bridges is designed to allow the future addition of the Tysons Connector which can be either a dedicated bus lane system or a street car system. The project length is approximately 0.55 miles, including portions across I-495, the new I-495 Express Lanes, and a Dulles Toll Road off-ramp and incorporates the requirements identified in the approved IMR. The project required widening of the I-495 Express Lanes bridge(s) over the I-495 outer loop (southbound) as well as the design of new bridges and structures spanning the I-495 inner loop (northbound) and Express Lanes. The design of the roadway was managed by Fairfax County DOT and completed in November, 2016. The project was advertised by VDOT and is being built under the management of VDOT. JMT adds their expertise in understanding both VDOT and Farifax County criteria, standards and goals for the project and coordinating these requirements to the many stakeholders. In addition to normal roadway criteria, the Jones Branch Connector is one of the first actual projects being developed to meet the Tysons Corner Urban Design Guidelines which govern most aspects of the design from utility locations to styles for lighting.

JMT is continuing to provide post-design services for engineering support during construction, including but not limited to: attending partnering and other construction related meetings with FCDOT, VDOT, Archer-Western, and adjacent developers. JMT has preparing formal construction revisions in response to the changing needs of adjacent developers like Capital One. We provide prompt field reviews and revisions to prevent work order claims, participation in construction value engineering and constructability reviews, review contractor's shop drawings and working drawings, provide construction advisory services (e.g., requests for information (RFI's)), prepare revision data sheet(s), and will eventually develop as-built plans.

RELEVANT PROJECT ELEMENTS TO ROUTE 7 AND BATTLEFIELD PARKWAY INTERCHANGE

Use of Innovative Design Solutions: The project is one of the first to incorporate the urban standards for Tysons. The design established real-world solutions to meet the planning-level goals for this transit-oriented area. Pedestrian, bike, bus, and aesthetics over-shadowed traditional roadway criteria. For example, the design accommodates a future rail trolley system in the median.

Limiting Impacts to the Traveling Public: One of the key issues was maintaining traffic flow as well as revenue flow to and from the concessionaire-operated Capital Beltway Express toll lanes. As part of our winning concept, JMT is provided an innovative solution that enhances safety during construction and actually increased potential toll revenues.

Effective Communication Strategies with Business Owners and other Key Stakeholders: A key aspect of the job is coordination with the developers helping to build Tysons into an urban, transit-related small city. The tallest building in the DC area is being erected by Capital One; it is immediately adjacent to the JBC project. Captial One continues to expand their campus and other "blocks" are just beginning construction as JBC work continues. Frequent meetings are held to coorinate design changes affecting JBC as well as to corrinate construction access. Other adjacent properties are developing in conjunction with the JBC as well. Construction in the area is exceedly dynamic but is one of the main reasons that this new vitial transportation corridor is vitally needed.

Adjacent developers and agencies were partnered into the design and construction process from day one. Although the total project length is only a little over ½ miles, it must coordinate with many stakeholders including, VDOT, MWAA, WMATA, FHWA, the I-495 Express Lanes concessionaire, and includes major adjacent property owners such as the Gates of McLean, the Hilton Headquarters, and the Capital One Headquarters campus. During key periods weekly meetings were held with Capital One to coordinate design and construction in conjunction with their campus expansion including the tallest building in the DC area.

Environmental Compliance: Extensive SWM analyses were conducted allowing treatment within existing systems and the use of nutrient credits which resulted in substantial cost savings. JMT assisted the Contractor is revising permits to include staging areas and expedite the start of construction.

Success in Minimizing Utility Impacts/Coordination of Complex Utility Relocations: Many existing utilities were in the process of being upgraded due the extensive adjacent and they were smoothly incorporated into the design. Before design began, JMT attended meetings with Washington Gas to set the locations of bridge abutments to successfully avoid conflicts with a newly installed major pipe under the Beltway. Dominion Virginia Power approached the design team which led to significant betterments being suspended under the new bridges to improve service in the Tysons area.

Success in Minimizing Right of Way: The project not only minimized the extent of ROW impacts but also provided much-needed additional parking for the Gates of McLean and added aesthetic treatment for an exposed wall on Hilton's garage.

Intersection/Interchanges: Modifications were made to a busy interchange including lane reconfigurations and signal modifications in compliance with an approved IMR.

Bridges/Structures: Two existing bridges were widened and modified to accommodate a future rail trolley system. One new bridge is being constructed with a complex curved girder geometry. Other structures included multiple wall replacements, new walls, garage cladding, and analysis of an existing culvert.

Roadway: In addition to normal roadway criteria, the Jones Branch Connector is one of the first actual projects being developed to meet the Tysons Corner Urban Design Guidelines which govern most aspects of the design from utility locations to styles for lighting; a truly "Complete Street" design.

Public Involvement/Public Relations: The complex project successfully passed through the Public Hearing stage with full public acceptance. Due to continued proactive partnering with affected parties, the public and other stakeholders are enthusiastically anticipating the end of construction and opening day

EVIDENCE OF PERFORMANCE

Bill Cuttler, PE, Deputy Administrator for Construction, VDOT NOVA District: "This project is a significant and great project that the design team should be continually highlighting in the media."

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