Replacement of I-81 Structures 18942 & 18944 over Route 808
Halls Bottom Road and Sinking Creek
From: 0.94 Miles Northeast of Route F310
To: 1.83 Miles Southwest of Rte. 611 Spring Creek Road

Statement of Qualifications

State Project No.: 0081-095-038
Contract ID Number: C00107116DB85

November 9, 2015
Washington County, Virginia
Letter of Submittal
November 9, 2015

Mr. Suril R. Shah
Alternate Project Delivery Office
Virginia Department of Transportation (VDOT)
1401 East Broad Street
Richmond, Virginia 23219

Dear Mr. Shah:

Wagman Heavy Civil, Inc. (Wagman) is pleased to submit our SOQ for this DB project. In accordance with the Letter of Submittal requirements for Section 3.2 we offer the following additional information for review:

3.2.1 This Submittal is signed in ink by an authorized representative of Wagman Heavy Civil, Inc.

3.2.2 Offeror’s Point of Contact Information:
Mr. David W. Lyle, V.P., DB / Major Pursuits
Wagman Heavy Civil, Inc.
26000 Simpson Road, North Dinwiddie, VA 23803-8943
T 804-631-0003 / F 804-733-6281
M 804-731-3707 / dwlyle@wagman.com

3.2.3 Principal Officer Information:
Mr. Greg M. Andricos, PE, President/COO
Wagman Heavy Civil, Inc.
3290 N. Susquehanna Trail, York, PA 17406
T 717-764-8521 x292 / F 717-764-2799
M 717-825-8688 / gmandricos@wagman.com

3.2.4 Offeror’s Corporate Structure: Wagman Heavy Civil, Inc. is an active, registered Corporation (SCC Corp ID: F019898-8) in Virginia and will take financial responsibility for this project. A single 100% performance bond and payment bond will be provided for the total contract value and time period. There are no liability limitations on behalf of Wagman Heavy Civil, Inc.

3.2.5 Identity of Lead Contractor/Designer: Wagman Heavy Civil, Inc. is the Lead Contractor responsible for overall contract execution/construction and will execute the Contract with VDOT. Johnson, Mirmiran & Thompson, Inc. (JMT) is the Lead Designer and will be responsible for the overall design.

3.2.6 Affiliated/Subsidiary Companies (Appendices): Full legal names/addresses are listed in the Attachment.

3.2.7 Debarment Forms (Appendices): Executed Attachments 3.2.7 (a) and (b) Debarment Forms.

3.2.8 Offeror’s VDOT Prequalification Evidence (Appendices): Wagman’s prequalification (No. W002) is Active and in good standing as outlined in VDOT’s Rules Governing Prequalification Privileges.

3.2.9 Evidence of Obtaining Bonding (Appendices): Wagman will provide performance/payment bonds based on the current estimated contract value in Section 2.1, and these bonds will cover the Project and any warranty periods. The bond will be underwritten for the full amount of the contract. Wagman’s Surety Co. has an A.M. Best’s Rating of “A” or better, and a Financial Size Rating of “XV” or better.

3.2.10 Full Size Copies of SCC/DPOR Registration Documentation (Appendices): Attachment 3.2.10 and full size copies of registration provides evidence and certifies that the Wagman/JMT DB Team (DBT) complies with the requests set forth and all businesses/individuals listed are active and in good standing.

3.2.11 DBE Statement (2% Commitment): The DBT is committed to achieving the 2% DBE participation goal during the design and construction of this road improvements project.

We thank you for the opportunity to submit our SOQ. We are confident that our DBT will deliver this project for VDOT and project stakeholders in a high quality, timely, and economical manner.

Very truly yours,

WAGMAN HEAVY CIVIL, INC.

David W. Lyle, Vice President, Design-Build / Major Pursuits
3.3
Offeror’s Team Structure
**3.3 Offeror’s Team Structure**

**Wagman Heavy Civil, Inc.** (Wagman) will be the Lead Contractor and is the Offeror who will have the overall authority on the project. Wagman, founded in 1902, continues today as a fourth generation, private family-owned heavy civil contractor specializing in transportation infrastructure and has grown to become a nationally recognized leader within the industry. Wagman is a heavy civil contractor with offices in Virginia, specializing in transportation infrastructure, and has grown to become a nationally-recognized leader within the industry. Wagman’s core competencies include Design-Build (DB), bridges, structures, utilities, highways, excavation, drainage, modified concrete, and geotechnical construction services including self-performing the design and installation of complex support of excavation systems adjacent to existing infrastructure. Wagman builds and rehabilitates bridges, highways, cut and cover tunnels, retaining walls, noise walls, interchanges and other structures. Wagman is an experienced DB Contractor who has partnered to complete the design and construction of over $1 Billion of transportation projects in the Mid-Atlantic Region.

In 2013, Wagman acquired Key Construction Company, Inc. (Key) and D.W. Lyle Corporation (D.W. Lyle). These acquisitions provided Wagman with an additional 50+ years of heavy construction experience in Virginia. Wagman retained the key personnel from these acquisitions whose knowledge, resources, and experience strengthen Wagman’s Team. With the acquisition of Key and D.W. Lyle, both of whom have an extensive history as VDOT contractors, **Wagman has fully integrated its presence in Virginia**. Furthermore, in February 2015 Wagman occupied a new office in Dinwiddie, Virginia. **With innovative engineering experience and a large fleet of heavy equipment, we are well-positioned to manage this project and can ensure a successful end result.**

Wagman has selected **Johnson, Mirmiran & Thompson, Inc. (JMT)** as our lead designer to provide all engineering services for this project. JMT is a multi-disciplined, A/E employee-owned company that offers a full array of consulting and technology services for infrastructure projects (including DB) throughout the United States. JMT is currently ranked No. 75 in *Engineering News-Record’s* (ENR) Top 500 Design Firms and was **recently named the 2015 Mid-Atlantic Region Design Firm of the Year by ENR**. JMT has completed thousands of highway and bridge projects ranging in complexity from local intersection improvements to challenging, multiphase, interstate projects. They have a documented reputation for the development of innovative solutions, on-time and within budget, for projects with a variety of delivery methods including Design-Bid-Build, DB, and Public-Private-Partnerships (P3). JMT has been the Lead Designer or Quality Control Manager on several DB projects and one P3 project throughout Virginia with total design and construction dollars exceeding $1 billion.

The individual staff members of Wagman and JMT have a solid, long-term, work history of teaming and partnering on transportation and, in particular, roadway and bridge projects over the past 25 years. More than 85% of the Wagman/JMT DB Team’s (DBT) current work is for repeat clients, illustrating our ability to deliver a safe, quality, and cost-effective project to our customers. The DBT takes pride in our total commitment to schedule and budget goals, particularly our ability to offer creative and innovative solutions to any design or construction obstacle.

Assisting the DBT is a hand-picked group of highly-qualified subconsultants that are adept in their field of expertise. These subconsultants located on the next page have a successful history working with both Wagman and JMT on Design-Build projects.

### DBT Subconsultants

<table>
<thead>
<tr>
<th>Subconsultant</th>
<th>Services</th>
<th>Certifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quinn Consulting Services, Inc.</td>
<td>QA Management and Inspection</td>
<td>DBE/SWaM Cert. No. 626289</td>
</tr>
<tr>
<td>Froehling &amp; Robertson, Inc.</td>
<td>QA Field and Laboratory Testing</td>
<td>SWaM Cert. No. 649650</td>
</tr>
<tr>
<td>NXL Construction Services, Inc.</td>
<td>Quality Control</td>
<td>DBE/SWaM Cert. No. 626437</td>
</tr>
<tr>
<td>S&amp;ME, Inc.</td>
<td>QC Field and Laboratory Testing</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SWaM Cert. No. 684372</td>
</tr>
</tbody>
</table>

**3.3.1 IDENTITY OF AND INFORMATION ABOUT THE KEY PERSONNEL**

The DBT is led by qualified and capable professionals with local-area knowledge and strong DB experience. The DBT’s identified personnel have relevant experience on transportation projects (including DB) in roles similar to...
those proposed on this project team. The DBT structure employs best management practices, emphasizes intra-
team communications, and empowers team members to solve issues at the most appropriate organizational level. Our proposed key staff members consisting of a Design-Build Project Manager, Independent Quality Assurance Manager, Design Manager, and Construction Manager, average 25 years of design and construction knowledge including significant experience with VDOT and innovative project delivery methods.

All DBT key staff members will meet their individual responsibilities as outlined on Pages 11 and 12 of the RFQ. The chart below introduces our Key Personnel; resumes are included in Appendix 3.3.1.

<table>
<thead>
<tr>
<th>Key Personnel</th>
<th>Project Responsibilities</th>
</tr>
</thead>
</table>
| Jorge Gambini, MCE       | Jorge is responsible for overall project design, construction quality management and contract administration. He will be the single POC and the DBT and will be responsible for the overall project design, construction quality management and contract administration. Relevant Experience –  
  - VDOT Design Build experience  
  - Masters on Construction Engineering and Management  
  - Extensive Project Controls Experience  
  - Served as project manager in several VDOT projects on Interstate roads  
  - Experience in Phased Bridge Replacement under strict Traffic Management Plans |
| (Wagman) Design-Build Project Mgr. |                                                                                       |
| ✓ 15 years of experience |                                                                                       |
| ✓ DB Experience in VA     |                                                                                       |
| ✓ Bridge/Structure Experience |                                                                                       |
| Joe Hammond, PE           | Joe is the Quality Assurance/Manager and is responsible for overall Quality Assurance services and oversight of the Quality Control Services. Relevant Experience –  
  - DBIA Certified Professional Engineer  
  - Significant experience as QAM on similar VDOT projects  
  - I-81 Climbing Lanes, Montgomery County, Salem District  
  - I-581 & Valley View Boulevard Interchange  
  - Route 60/Main Street Bridge Replacement  
  - Multi-Bridge Replacement Projects |
| (NXL) Quality Assurance Manager |                                                                                            |
| ✓ 30.5 years of experience |                                                                                       |
| ✓ Bristol District experience |                                                                                       |
| ✓ VDOT Interstate DB experience |                                                                                       |
| Trip Phaup, PE            | Trip is responsible for coordinating the individual design disciplines and ensuring the overall project design is in conformance with the Contract Documents. Trip will also be responsible for establishing and overseeing the QA/QC program for design and design related services during construction. Relevant VDOT, DB, and Bristol District Experience –  
  - Route 61 over New River, Route 460, Old Virginia Avenue, DB Bridge Replacement Project with Wagman, Salem District  
  - I-77 SB over New River Bridge Approach Roadway Improvements, Fast Track Schedule, Bristol District  
  - Old Airport Road over Beaver Creek Bridge Widening, Bristol District |
| (JMT) Design Manager     |                                                                                       |
| ✓ 25 years VDOT experience |                                                                                       |
| ✓ DB experience           |                                                                                       |
| ✓ Recent Bristol projects |                                                                                       |
| Duane Carico             | Duane will be on site for the duration of construction operations as the Construction Manager. He is uniquely qualified to perform this role due to his significant experience on both the contracting and inspection side. Relevant Experience –  
  - I-81 Climbing Lanes, Montgomery County, Salem District  
  - Route 61 over New River, Narrows, VA  
  - Southgate Drive over Route 460, Blacksburg, VA |
| (Wagman) Construction Manager |                                                                                       |
| ✓ 20+ years VDOT experience |                                                                                       |
| ✓ VDOT Interstate DB experience |                                                                                       |
| ✓ Bridge/Structure Experience |                                                                                       |
| ✓ Roadway Experience      |                                                                                       |

3.3.2 ORGANIZATIONAL CHART

The organizational chart image provided on the next page shows the “chain of command” while identifying major functions to be performed by the DBT. The organizational chart also shows the reporting relationships of Key Personnel responsible for the management of design, construction, and QA/QC activities. The DBT has clearly defined roles and relationships.
3.3 Offeror’s Team Structure

Third Party Stakeholders
- Washington County
- City of Bristol
- Town of Abingdon
- Federal Highway Administration (FHWA)
- American Automobile Association (AAA)
- VDEQ, VMRC, USACE
- Utility Owners and Service Authorities
- Adjacent VDOT projects
- Local Businesses
- Local Homeowners
- Over the Road Truckers
- Traveling Public

VDOT
- Bristol District Project Manager
  - Jorge Gambini, MCE

Project Resources Group
- David Lyke, VP
- Glen Mays, VP
- Robert Gallagher, PE

DB Project Manager
- Jorge Gambini, MCE

Safety Manager
- Bryan Szostak

Design Manager
- Trip Phau, PE

Design QA/QC Mgr.
- Robert Reed, PE
- Structural/Bridge
  - Jay Utz, PE
  - George Clendenin, PE
- Hydraulics
  - Darin Miller, PE
  - Richard Dameron, PE
- H&HA/Scour Analysis
  - Josh Lebnersperger, PE
  - Phil McClelland, PE
- Environmental
  - Ian Frost, CEP, CE
- Geotechnical Engr.
  - Michael Leffler, PE
- Drilling
  - DMY

Lead Highway Engr.
- Rodney Haylett, PE
- Highway
  - Jeff Cronin, PE
- Traffic Control
  - Randy Boice, PE
- TMP
  - Jeff Cronin, PE
- Utility Coord./Reloc.
  - Mike Luning, PE
  - Chris Taylor, PE
- Survey
  - Michael Zmuda, LS, PE
- SUE
  - Gary Campbell, PE

Construction Manager
- Duane Carico

Highway Superintendent

Structure Superintendent

Construction MOT Manager

Utility Coordination/Construction

QC Manager
- Daniel Berry

QC Staff Inspectors

AMRL/CCRL Lab. Testing

Project Controls

QA Manager
- Joe Hammond, PE

QA Staff Inspectors

AMRL/CCRL Lab Testing

Legend
- Direct Report Line
- Line of Communication
- Key Personnel
3.3 Offeror’s Team Structure

3.3.2 ORGANIZATIONAL CHART NARRATIVE

Reporting Relationships of Key Personnel - The DBT organization is optimized to present clear, logical, reporting relationships to manage the design and construction of the Replacement of I-81 Structures 18942 & 18944 over Route 808 Halls Bottom Road and Sinking Creek project (I-81 Bridge Replacement project), while maintaining distinct responsibilities and project controls. The project organization is structured to facilitate timely and effective communication among all personnel, regardless of position. Practical lines of communication running between design, construction, and the independent QA/QC support staff, along with direct reporting to the DBPM allows all levels to function as a team. Our organizational structure is a successful model implemented by Wagman and JMT on similar DB projects.

The organizational chart further depicts that the main production staff interfaces with the Design-Build Project Manager (DBPM) through the Key Personnel comprised of the Independent Quality Assurance Manager (QAM), Design Manager (DM), and Construction Manager (CM) allowing effective communication among all team members. The DM and the CM will support and report to the DBPM in their respective areas of expertise. The QAM will report directly to VDOT and shall be responsible for quality assurance, inspection and testing, plus monitoring the project QC program. The DBPM will rely on the DM, the CM, and the QAM to effectively coordinate their individual Team elements and will use these Key Personnel to communicate to all Team members during design and construction. Details of the roles of each of the Key Personnel and reporting relationships are listed below:

Design-Build Project Manager (DBPM) - The DBT organizational chart starts with VDOT at the pinnacle of the hierarchy. The DBT recognizes that all final decisions rest with VDOT. The DBT’s primary interface with VDOT will be through the DBPM, Mr. Jorge D. Gambini, MCE. In accordance with sound management practices and VDOT guidance, the DBPM serves in the most crucial role, one that defines success for all aspects of the project. Mr. Gambini will be responsible for meeting DBT obligations under the Contract and avoiding and resolving disputes. He is the principal conduit for communication with VDOT, and exercises direct control over the design, construction, contract administration and other services required including public outreach functions. The DBPM will work closely with the QAM to coordinate all QA and QC efforts.

One feature of the DBT proposal is the independence of the key support staff and specialty professionals whose roles are to assure that the highest levels of quality and safety are maintained throughout design and construction phases of the project. DBT members have years of experience with integrated quality and safety programs that have been refined and incorporated in best management practices for delivering innovative and award-winning DB projects.

Independent Quality Assurance Manager (QAM) - NXL Construction Services, Inc. (NXL) is the Team’s Independent Construction QA firm for this project. NXL commits Mr. Joe Hamed, PE, CCM, PMP, DBIA to serve as the Independent QAM. He will report directly to VDOT and will work closely with the DBPM on all quality issues. He will attend all project meetings. Mr. Hamed will be responsible for the quality assurance (QA) inspection and testing of all materials used and work performed on the Project, to include monitoring of the contractor’s quality control (QC) program. Additionally, he will oversee the activities of the independent AMRL/CCRL certified off-site materials sampling and testing laboratory. The QAM will ensure that all work and materials, testing, and sampling are performed in conformance with the contract requirements, and the “approved for construction” plans and specifications.
Design Manager (DM) - The DBT organizational chart clearly defines that all design disciplines for the project will report to the **DM, Mr. Trip Phaup, PE**. The approach to staffing these disciplines hinges on the concept of matching the requirements of this project to the experience and depth of knowledge of staff best suited to fulfill these specific requirements. While the majority of the disciplines will be covered by JMT professionals, the Design Team does include one specialty subconsultant that will augment JMT and report directly to the DM. The DM will report directly to the DBPM. During the design phase of the project, the DM will interface directly with each of the discipline leaders, whether that individual is a JMT staff member or a subconsultant contracted with JMT. Mr. Phaup will also establish and oversee the QA/QC program for design. The responsibilities of the Design QA/QC Team will be separated between QA and QC.

Construction Manager (CM) - **Mr. Duane Carico** is the CM for the project who will oversee all major construction activities and will manage the Construction QC program, Construction MOT Manager, Field Superintendents, Subcontractors, Scheduler and Project Controls. His tasks will include CPM schedule development and updating, resource planning and allocation, budgetary and cost control, subcontractors scheduling, MOT, ESC, and shop drawing review. The CM will report directly to the DBPM. The Construction Quality Control Manager (QCM) will report directly to the CM.

Assisting the DBT is a hand-picked group of highly-qualified support personnel that are experts in their field of expertise. Please see the table below for a brief description of the qualifications and experience:

<table>
<thead>
<tr>
<th>Project Resource Group</th>
<th>Support Personnel</th>
<th>Reporting Role to</th>
<th>Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>David Lyle, VP</td>
<td>DB Project Manager</td>
<td>David Lyle, Wagman, Vice President, Design Build/Major Pursuits has 27 years of supervisory and management experience in highway construction with particular experience in bridge replacement and rehabilitation projects throughout Virginia. David has been a member of the VTCA Structure and Bridge Subcommittee since 1996 and currently serves as Vice Chairman. David also currently serves on the VTCA Design Build Subcommittee. Past service as a member of the VRTBA Board of Directors and VTCA Contractor Leadership Committee also add value and knowledge available to the DB Team.</td>
</tr>
<tr>
<td></td>
<td>Glen Mays, VP</td>
<td></td>
<td>Glen Mays is Wagman's Vice President, VA General Manager. A 30-year veteran of the highway construction industry with a vast resume and experience with VDOT and other DOT’s in both Hard Bid and Design Build Projects prove Glen to be an industry leader in operations, safety, and project management.</td>
</tr>
<tr>
<td></td>
<td>Bob Gallagher, PE</td>
<td></td>
<td>Mr. Gallagher has 29 years of extensive experience in Virginia transportation projects. He serves as JMT’s Virginia Transportation Manager and is responsible for all major transportation disciplines of roadway and bridge design, construction inspection, and right-of-way acquisition within the Commonwealth. He is thoroughly familiar with the VDOT project development and delivery process for transportation projects. Mr. Gallagher has been instrumental in the successful design and administration of many VDOT and municipal, VDOT funded, highway projects including</td>
</tr>
</tbody>
</table>
## Offeror’s Team Structure

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
<th>Experience</th>
</tr>
</thead>
</table>
| Safety Manager        | Bryan Szostak               | Bryan will provide Safety oversight for the project and be a resource for the entire DB Team throughout the project. He is familiar with VDOT projects and has been part of several VDOT DB projects as the Safety Manager. With a Bachelor's degree in safety management as well as ATSSA, NCCCO, OHSA, and other industry standard safety training Bryan will be able to help plan and execute all aspects of the projects. Recent DB experience includes:  
  - Elm Avenue over I-581, Roanoke, VA  
  - Middleground Boulevard, Newport News, VA |
| Highway Engineer      | Jeff Cronin, PE (JMT)       | Jeff has over 18 years of experience in roadway design and construction and will be preparing the road plans and maintenance of traffic plans for the project. Jeff has worked extensively in the Bristol District including serving in a similar role on the I-77 SB over New River Bridge Approach Roadway Improvements project and the Coalfields Expressway/Route 460 DB project both in the Bristol District. |
| Structural Engineer   | George Clendenin, PE (JMT)  | George has over 45 years of experience in all aspects of structure and bridge design having worked for a majority of his career with VDOT in the Structure and Bridge Division and retiring as State Structure and Bridge Engineer. George has served as lead bridge designer on two recent VDOT DB projects with Wagman – the Route 61 over the New River, Route 460, and Old Virginia Avenue DB Bridge Replacement project in the Salem District and the Odd Fellows Road over Route 460 DB Bridge project in the Lynchburg District. |
| Hydraulics            | Pilar McClelland, PE (JMT)  | Pilar has over 35 years of experience in hydraulic and hydrologic analysis for bridges over waterways including performing the river mechanics for the Old Airport Road over Beaver Creek Bridge Widening in the City of Bristol. |

All of JMT’s Design Team members are registered professionals in their areas of expertise in Virginia and have decades of infrastructure experience including innovative project delivery methods.
3.4
Experience of Offeror’s Team
3.4 Experience of Offeror’s Team

RELATIONSHIP OF WAGMAN AND JMT

Wagman and JMT have a solid and long-term work history of teaming and partnering on transportation and, in particular, roadway and bridge projects including DB. The proposed individuals share the same history of working as a team. The successful completion of the following projects demonstrates that the DBT possesses the skills and knowledge to provide VDOT with an exceptional team for the design and construction of the Replacement of I-81 Structures 18942 & 18944 over Route 808 project. In addition, our focus on process, quality, planning, and scheduling make us an excellent team. Both organizations and our proposed key staff are very experienced with the DB process and have a proven cooperative work history. It should be noted that employees, now employed by Wagman/JMT, worked together and successfully completed other VDOT DB projects on-time and budget.

HIGHLIGHTED DBT PERSONNEL HISTORY

Wagman’s David Lyle, and JMT’s Design Manager, Trip Phaup, PE have a 25 year relationship working together on bridge and structure related projects including design-build projects, design-bid-build projects, value engineering (VE) redesigns, and construction engineering assignments for cofferdams, sheeting and shoring, crane lifting beams, and other miscellaneous structures. David and Trip first met at Virginia Tech while taking classes in Civil Engineering and Building Construction. They first worked together as Contractor’s project superintendent and Engineer’s construction inspector on the Pungo Ferry Road Bridge in the City of Virginia Beach, which was completed in 1991 and have worked hand-in-hand since then on several projects (combined value over $150M) in Virginia including:

- Odd Fellows Road Interchange at Route 29/460 and Road Improvements (DB), City of Lynchburg, VA
- Route 61 over New River, Route 460, and Old Virginia Avenue (DB), Town of Narrows, VA
- James Madison Highway (Route 15) Improvements (PPTA DB), Prince William County, VA
- Southpoint Parkway Bridge over Massaponax Creek Total Bridge Design, Spotsylvania County, VA
- Route 15 over the Rivanna River (Value Engineering Redesign), Fluvanna County, VA
- I-95 (NBL and SBL) over CSX Railroad Superstructure Jacking Plans, Caroline County, VA
- Route 288 Improvements with 25 Bridges (PPTA DB), VDOT Richmond District

HIGHLIGHTED DBT WORK HISTORY

Recent DB projects that Wagman and JMT have collaborated to provide DB services include:

- VDOT, Odd Fellows Road Interchange at U.S. Route 29/460 and Road Improvements (DB), Lynchburg, VA ($29.8M) - Currently working on the design and construction on the interchange and improvements to approximately 1.0 miles of U.S. Route 29/460 and 1.3 miles of Odd Fellows Road.
- VDOT, Route 61 (MacArthur Ave) over New River, Route 460, and Old Virginia Avenue Bridge Replacement and Approaches (DB), Narrows, VA ($17M) - The DBT designed/constructed a 1,200-ft. long jointless replacement bridge/approaches. The scope included preliminary/final design for bridge, road and utilities; acquiring all environmental permits/approvals; providing QA/QC for design/construction; acquiring all required R/W; and performing multiphase MOT and overall project management. The DBT incorporated context sensitive solutions including overlooks on the bridge over the river, a Park & Ride facility, a bioretention facility, sidewalks, bike lanes and lighting.
3.4 Experience of Offeror’s Team

**EFLHD/NPS, U.S. 209 Bridge Replacement and Approaches over Raymondskill Creek in Delaware Water Gap National Recreation Area (DB), Pike County, PA** - The DBT designed/constructed this bridge project which involved the replacement of the superstructure and rehabilitation of the substructure for a 56-year-old bridge. U.S. 209 was reconstructed and widened with improvements to an at-grade intersection.

**PWCDOT/VDOT James Madison Highway (Route 15) Improvements (PPTA), Prince William County, VA ($52M)** - JMT as a subconsultant, designed two river crossing structures constructed by Wagman (D.W. Lyle). Also provided Stage II services for an additional bridge designed by others, ROW services, and utility designating services.

The DBT has also coordinated and worked together on several Design-Bid-Build projects including:

- **I-95/I-495/I-295/MD 210 Interchanges (Woodrow Wilson Memorial Bridge), Prince George's County, MD ($105.8M)** - During construction JMT worked with Wagman on VE proposals to reduce cost and schedule. The redesign of the approach fill using geofoam resulted in owner savings of $2M+.

- **Jones Branch Connector, Fairfax County, VA ($40M)** - Wagman (D.W. Lyle) constructed the existing Connector bridges now being widened/extended by JMT under the Connector final design.

- **I-695/I-95 Interchange (Section 100) Express Toll Lanes, Baltimore County, MD ($216.7M)** - JMT coordinated with Wagman (managing JV partner) during the construction. The collaboration resulted in accepted value engineering proposals totaling owner savings of $2M+.

### JMT’S DESIGN-BUILD EXPERIENCE IN VIRGINIA

JMT is experienced with various procurement methods employed by owners, including DB, DBB, PPP, one-step, two-step best value, and stipulated sum competitions and maintains and nurtures a strong relationship with VDOT. They routinely employ a proactive approach to DB projects providing an interactive design process of collaboration/partnering with the contractor and VDOT to assure engineering excellence. Our successful proactive/partnering approach is evident in the numerous DB projects that JMT has worked on in Virginia. JMT also holds and has held numerous statewide contracts for Design and Traffic Engineering throughout the Commonwealth which further illustrates JMT’s experience and commitment to supporting and improving Virginia’s infrastructure. In addition to the above listed DB projects, other highlighted DB/P3 projects that JMT has participated as the Lead Designer and/or member of the Design Team include:

- **VDOT, Coalfields Expressway/US Route 460 Connector – Phase II Section (PPTA-DB), Bristol District, VA ($108M)** – JMT was the lead designer for 6.2 miles of divided, four-lane principal arterial on brand new alignment through extremely mountainous terrain.

- **VDOT, Route 3 Widening (DB), Culpeper District, VA ($2.7M)** – JMT is leading design for the widening of Route 3 from two lanes to four lanes, a 5.5-mile section of roadway.

- **VDOT, Route 15/460 Approaches and Bridge over Buffalo Creek in the Town of Farmville, VA ($2.9M)** – JMT was the lead designer and provided design and construction QC for the bridge replacement, while maintaining the daily traffic for 3rd Street (Route 15/460) over Buffalo Creek.

Additionally, JMT served as the lead designer on several successful DB projects in the mid-Atlantic region, including the award-winning **11th Street Bridges over Anacostia River and Interchanges ($375M) in our nation’s capital (photo on right)**. JMT used innovative design techniques to refined the planning document alignments and interchanges to reduce costs and environmental/community impacts and saved the District DOT $81M.

These example projects described above demonstrate that members of the DBT’s key/support staff have a solid, long-term relationship delivering relevant, successful transportation projects in Virginia and surrounding area.
3.5
Project Risks
3.5 Project Risks

INTRODUCTION

Project risks and the management of the risks is the most critical activity for any Design-Build (DB) project. The Wagman/JMT DB Team (DBT) recognizes that each project presents different risks and the probability and impact that the risks pose on the project vary significantly. A best practice to ensure project success includes identification, impact analysis and a proactive risk mitigation/management plan. As the project evolves, the risk assessments and management/mitigation strategies may change. The DBT takes a proactive approach to identification, mitigation and management of risks and continues the process throughout design and construction. We continually evaluate the effectiveness of our mitigation strategies and have mitigation strategies and processes in place to analyze any new risks that may arise.

The DBT has carefully identified the three most relevant and critical project risks to mitigate to ensure successful project delivery. Below, we identify and analyze each risk, provide our initial mitigation strategy, and explain our expectation for the level of involvement required of VDOT and other stakeholders.

RISK NO. 1 – Construction Phasing / Maintenance of Traffic

Why the risk is critical and the impact the risk will have on the Project: Construction phasing and the resulting maintenance of traffic is a major risk to the traveling public, construction workers and the project schedule. The Replacement of I-81 Structures 18942 and 18944 over Route 808 Halls Bottom Road and Sinking Creek project site is located along a high speed interstate facility carrying over 46,000 ADT with 22% trucks designed and constructed to late 1950’s geometric standards. The scope of work for the project includes performing all temporary and permanent road and bridge work within the existing right-of-way while maintaining at least two lanes of traffic in each direction during construction. The demolition, removal, and replacement of mainline bridges on a major interstate can be very challenging while maintaining two lanes of traffic. With the large volume of traffic (including a significant percentage of truck traffic) through the work zone, the traveling public is at risk due to re-alignment of the Interstate, temporary conditions, such as temporary support of excavations and structures, and temporary paving, signage, and pavement markings. Providing a safe work zone is one of our core values and working alongside moving traffic is one of the greatest hazards faced by construction workers.

Our employees are our greatest assets, and we want to perform our work in a safe manner, within a safe environment so that we can get through the day without incident.

Phased construction of mainline bridges on a major interstate such as I-81 creates many unique challenges. We will begin construction in the median between both northbound and southbound to create a temporary roadway and bridge to allow northbound traffic to be switched to this temporary location. After northbound traffic is switched, we will demolish the existing and construct the new northbound structure. Northbound approach roadways will be reconstructed and when complete, northbound traffic will be relocated to the new northbound structure. In the next phase, we will work in the median again to reconstruct the temporary facilities to accept southbound traffic. When this phase is complete, southbound traffic will be switched to the temporary location and we will demolish the existing and reconstruct the new southbound structure and roadway approaches. The final phase will involve relocating the southbound traffic to the permanent location and removing the temporary roadway and bridge from the median. Multiple major traffic switches will create hazards to the workers and the traveling public as well as control the progress of the project.

Another risk associated with the construction phasing is the possible support or temporary support of the existing structure during construction. Underpinning, support of excavation or temporary supports during demolition may be required to ensure the safety of all involved. The existing structures are not in the best condition and construction adjacent to them is an added risk that can create a safety hazard.

Mitigation strategies the DBT may implement to address the risk: Development of the Traffic Management Plan (TMP). The Design Build Team (DBT) will create and submit the TMP that will address the diverse needs of a multi-phase, interstate bridge replacement project including
strategies to address three (3) key elements – temporary traffic control, public information, and transportation operations as described in VDOT L&D IIM-LD-241.5 “Work Zone Safety and Mobility – Transportation Management Plan Requirements”.

**Temporary Traffic Control Strategies** including developing traffic control strategies depicted on temporary traffic control plans, selecting and using appropriate traffic control devices, implementing project coordination and innovative construction strategies. **Temporary Traffic Control Plans (TCPs)** provide the sequence of construction activities. The proposed construction along with any proposed lane closures will be shown with the appropriate traffic control devices. The TCPs will be in accordance with VDOT requirements and accommodate the construction sequencing and associated work zones. Through early design coordination, each phase of the TCP will meet RFP requirements and adhere to the VDOT Work Area Protection Manual (VWAPM) and MUTCD criteria. The coordination process will ensure that the TCPs address work-zone traffic control, detours, work restrictions, constructability concerns and potential traffic impacts. TCPs will include VWAPM and MUTCD compliant details such as traffic management stage narratives and allowable work schedules, work zone signage, detour routes, access to local businesses, public notification requirements, alternate routes, maintenance of pedestrian and bike routes, and coordination with emergency services and School transportation. The TCPs will expedite the opening of completed sections to travelers in order to improve traffic operations when possible. Typical sections will be provided to demonstrate how the interim phase of construction interacts with the existing condition and the ultimate completed project. This will be extremely important when designing and detailing the sequence of construction of the replacement of the mainline structures. The plans and typical sections will identify areas of temporary drainage so water is not trapped during any phase of construction.

**Transportation Operations Strategies** include implementing demand management strategies, corridor/network management strategies, work zone management strategies, and traffic/incident management strategies. The DBT will look at strategies to improve safety and operations during maintenance of traffic including modifying the proposed design to reduce MOT requirements, and sequencing the construction to move traffic out of the work zone. Due to the constrained site, few opportunities exist to shift traffic away from work areas, which will require multiple internal traffic shifts to accommodate the proposed improvements. Snow removal during winter events will be considered. Detailed plans showing signs, markings, and other devices along with incident management plans will be developed.

**Proper Planning:** Design coordination and constructability reviews will ensure that the Traffic Control Plans are workable and that the workers and traveling public remain safe during construction. Implementation of the Traffic Control Plans will require open and constant communication along with stakeholder coordination to make each traffic switch safe and efficient. After the TCPs are issued for construction, we will create Construction Work Plans for each major traffic switch, lane closure or temporary traffic condition. Following is the workplan template that our team uses to properly plan all work activities:
WORKPLAN TEMPLATE

1. Activity Description and Table of Contents
   a. Field Engineer, Foreman, Superintendent, Project Manager developed.

2. Budget Information and As-Bid Methodology
   a. Account codes
   b. Budget
   c. Crew size
   d. Productions

3. Equipment and Small Tools

4. Permanent and Construction Materials
   a. All materials required for the work activity
      i. Proper MOT signs
      ii. Aggregate, concrete etc.
      iii. Forms, false work etc.
      iv. Expansion joints, rebar etc.

5. QA/QC
   a. Field Testing requirements for Material (frequency and testing)
   b. Quality Hold Points
   c. QC Hold Point check list

6. Access, Egress and Laydown
   a. Plan
   b. Logistics Plan
   c. Maintenance requirement to prevent tracking mud

7. Detailed Sequence of Construction
   a. Step by step process with “hold points” for survey, safety, QC, QA and owner inspection.

8. Environmental Compliance
   a. Survey and Delineation of Environmental Resources
   b. Environmental compliance Training check or workers
   c. E&S inspection (daily & major storm event)
   d. Emergency contact numbers

9. Company Support Requirements
   a. Engineering (example: special rigging)
   b. QC
   c. Environmental Compliance (SWPPP & SPCC)
   d. Survey
   e. Environmental (example: hazardous materials or E&S requirements that will affect the outcome of the activity)

10. Drawings and Specifications
    a. Contract drawings and specs. (Released for Construction Plans)
    b. Approved Temporary Construction Plans (TCP’s)
    c. Specifications
    d. RFI’s & response
    e. Shop drawings
    f. Working and formwork drawings

11. Safety
    a. Activity Hazard Analysis (AHA’s)
    b. Personal Protective Equipment (PPE)
    c. Nearest medical facility
    d. Emergency contacts
    e. Personnel Rescue or retrieval
    f. Meet with Emergency Response Community

12. Public Outreach
    a. Lane closure notification requirement
3.5 Project Risks

b. MOT switch notification requirement

c. Variable Message Board Plan & Message

13. Maintenance of Traffic
   a. Proper phase and signage

14. Outside support
   a. Subcontractors and suppliers (Pavers, Pavement Markings, Etc.)
   b. Owner
   c. Required Law Enforcement for MOT

Our team will use this outline to develop a Construction Work Plan for every major construction operation; tying construction operations to the traffic control and construction sequencing. A work plan will be generated for every lane closure and major traffic switch.

Accelerated Bridge Construction: The team understands that minimizing time in the work zone can greatly reduce this risk. We will evaluate various Accelerated Bridge Construction (ABC) techniques to determine if they are appropriate from a safety, cost, and schedule perspective. For example, the DBT will evaluate whether the substructure can be constructed or improved “in-place” and superstructure units fabricated entirely offsite and then shipped to and erected on-site during a short period are feasible. Since Hall Bottom Road may be closed during construction, the DBT may also evaluate whether the substructure can be constructed under the existing bridges and the superstructure constructed on temporary supports adjacent to the bridge and then be “slid” into place during a short duration shut down of the mainline.

Role the DBT expects VDOT or other agencies may have in addressing these project risks: The DBT anticipates that VDOT will provide oversight and approvals of the TMP and assist in adjusting the plan if unforeseen situations should arise. The DBT also anticipates that VDOT will post notifications from the DBT providing construction activity updates through their Traffic Management Systems.

RISK NO. 2 – Third Party Coordination / Public Outreach

Why the risk is critical and the impact the risk will have on the Project: I-81 is a vital thoroughfare through Washington County between the City of Bristol and the Town of Abingdon that carries high traffic and truck volumes, both local and long distance travelers. Nothing can derail a project quicker than poor third party coordination / public outreach. Public perception becomes reality if project schedules and risks are not communicated properly to the stakeholders. Stakeholders become very vocal to VDOT, the Bristol District, newspapers and politicians if the DB Team does not communicate project status early and often. Contractors are on the project site for a short time, but issues can linger long after the project is completed if we do not coordinate and communicate properly. Poor communication and coordination can lead to mistrust with the stakeholders and create a public perception that is very critical. Perception becomes reality.

We understand that Exit 14 on I-81 will be under construction during construction of the I-81 Bridge Replacement project which will further complicate planning, design, and construction. The potential for confusing the traveling public between these two projects will be high. Construction projects can be very disruptive to the local community and the traveling public. Proper planning and dissemination of information to all stakeholders reduces disruption and mitigates risk to the traveling public.

Mitigation strategies the DBT may implement to address the risk: As mentioned above, the DBT will create and submit a TMP that will address the diverse needs of a multi-phase, interstate bridge replacement project including strategies to address three (3) key elements – temporary traffic control, public information, and transportation operations as described in VDOT L&D IIM-LD-241.5 “Work Zone Safety and Mobility – Transportation Management Plan Requirements.” Public Communications Strategies include implementing both public awareness and motorist information strategies.

Wagman has extensive experience working on major interstates throughout the mid-Atlantic. We have replaced mainline structures and bridges over interstates such as I-95, I-495, I-64, I-80, and I-81. In particular, Wagman’s work along the I-85, I-81, and I-83 corridors involve similar original construction ages and characteristics (high
ADT, high truck percentage, high speed, and late 1950s geometrics). Through our experience on these projects, we have learned that a public communications plan, traffic notifications and project meetings are extremely important.

Public Communication Plan: In collaboration with VDOT and the Bristol District, we will develop a Public Communications Plan to address the concerns of all stakeholders and to communicate with everybody affected by this project. We will establish a project website, create an e-mail newsletter and employ variable message boards to alert the traveling public. We understand that Exit 14 on I-81 will be under construction during our construction effort and we will coordinate and communicate with other Contractors on adjacent projects to develop construction phasing and traffic patterns that complement each other. We will take measures to direct the traveling public and lessen confusion between project work zones.

Communication will be critical in traffic, incident, and congestion management. Short-term lane closures and new traffic patterns will need to be planned well in advance and communicated to all users (VDOT, stakeholders and emergency services) of the corridor prior to their implementation. Methods of communication will include the use of portable variable message signs, websites, social media, e-mail newsletters, press releases, flyers printed for the nearby residents and employees and owners of nearby businesses to identify changes that will occur during each phase of construction. The Public Communications Plan will provide a process of notification for any traffic delays both scheduled and unscheduled. The DBT will explore the potential to include a public information campaign as part of our Public Communications Plan that will provide alternate routes and promote the use of these alternate routes to help reduce the volume of traffic entering and going through the work zone.

Traffic Notifications: The DBT will develop a process to notify the Regional Traffic Operations Center to include detour and lane closure information on the 511 system. A list of local emergency response agencies will be included in the plan along with procedures to respond to traffic incidents that may occur in the work zone. Traffic analysis will be performed for each phase of construction to confirm that the proper level of service is being maintained. The analysis along with any traffic incidents will provide the tools necessary for modifying the Temporary TCP if required along with providing historical data for future projects.

Project Meetings: We will work with VDOT to establish a Design Public Information Meeting to convey the design and construction plans and schedule to the interested public. We will notify all stakeholders of a specific time and place where they can review and comment on the design and construction sequence. Comments will be collected and addressed in the design and construction plans when feasible. We will establish monthly Coordination Meeting immediately after Notice To Proceed. As required, stakeholders will be invited to the monthly meeting to address concerns during design and construction. Prior to start of construction we will have a construction kick-off meeting to inform stakeholders as we transition from design to construction.

Role the DBT expects VDOT or other agencies may have in addressing these project risks: The DBT will lead the Public Outreach effort with support from VDOT and the Bristol District. We will work closely with VDOT to enhance the project website and to notify the traveling public with traffic information through the 511 system. VDOT will review and approve the Public Communications Plan. All messages to the public will be submitted to VDOT for review and approval prior to dissemination.

RISK NO. 3 – Design and Construction in an Active Karst Area

Why the risk is critical and the impact the risk will have on the Project: A critical risk for this project is the challenge in designing and constructing bridge approaches and foundations in a karst environment. As stated on page 2 of the Geotechnical Data Report (GDR) prepared for the project, “The bridges are located in an active karst area, and karst features were noted in the immediate bridge vicinity to the west side of the southbound lane. Carbonate rock outcrops and a cave opening were observed with a significant groundwater flow coming out of the opening. The flow continued under Halls Bottom Road and into Sinking Creek.” In addition, the GDR states “The area is also known for numerous sinkholes, caves, and subterranean streams. Karst land is mapped in the immediate site vicinity and karst features were observed during our site visit.”
Subsurface conditions can vary dramatically over short distances in karst terrain. In fact, a karst environment can contain both suitable rock foundation material and voids or clay seams within the same foundation unit. The risk is critical because if a conventional field investigation plan with one or two borings per foundation unit happen to encounter solid rock but also contain undiscovered voids, the foundation of the bridge can be compromised. Standard boring spacing along the approach roadway may miss existing voids or clay seams resulting in “sink holes” or excessive settlements. Sometimes, the voids or clay seams are discovered during construction where designs have to be modified quickly to maintain the project schedule and minimize impacts to traffic. Gaining concurrence from bridge designers, geotechnical engineers, Contractor, and VDOT can take time to make sure correct decisions are made. At other times, the voids or clay seams are not discovered until after construction and either settlement, movement, or structural failure are discovered during routine inspections. Corrections to the bridge approaches and foundations are much more challenging after construction is complete.

The impact of this risk is that it will require close coordination during design, construction, and review of the bridge approach and foundation elements by all team members – the bridge designer, geotechnical engineer, Contractor, and VDOT reviewers. The foundation types for the I-81 bridges may not be conventional spread footing or driven steel pile situation therefore, team members need to be prepared for changed conditions.

Mitigation strategies the DBT may implement to address the risk: The Wagman/JMT Team is very familiar with constructing bridge approaches and foundations in a karst environment having successfully constructed the 1,140’ long bridge on Route 61 over the New River as part of a VDOT Design-Build Project in the Salem District. Following are some of the mitigation strategies that the Team will implement based on the “Lessons Learned” from the Route 61 project:

- Develop and complete a robust geotechnical investigation including obtaining additional borings in excess of the standard numbers recommended in VDOT’s Material Division Manual of Instructions, Chapter 3. For example, for drilled shafts, obtain one boring at the center of each proposed shaft. For spread footings, obtain a boring each corner and in the middle of each foundation.
- Perform additional geotechnical investigations after the initial field work if concerns are identified during the design and review process.
- Design to accommodate change in foundation depth. Plan for encountering voids by using foundation elements that can be extended in depth such as drilled-in mini-piles or drilled shafts and designing spread footing for greater that the normal three (3) feet of lowering of the bottom of footings.
- Develop a plan to perform load testing in the field in excess of the conventional VDOT requirements either as part of the normal foundation installation process or only if changed conditions are encountered.
- Acknowledgement by design and construction team members of the issue by developing a plan to inspect to a higher level during foundation construction and developing a plan to address potential foundation design changes quickly.

Wagman is currently using low mobility grouting, drilled-in micro-piles, drilled shafts, and drilled-in H-piles on projects to overcome the challenges associated with karst geology features. Wagman self performs construction of all of these foundation techniques. The ability to self-perform these foundation techniques makes Wagman uniquely suited for mitigating this risk. Wagman employs geotechnical engineers who are very familiar with the many solutions associated with karst geology. Wagman engineers will collaborate with the design engineers to ensure the most efficient and cost effective solutions.

Role the DBT expects VDOT or other agencies may have in addressing these project risks: The Wagman/JMT Team understands that management of this risk is the responsibility of the Offeror and would look to VDOT to have the following role in addressing the risk -

- Understand the issue during design. Perform reviews of the geotechnical report and design plans knowing that the bridge approaches and foundations are designed for flexibility.
- Understand the issue during construction. Assign knowledgeable staff to assist during construction so that if changed conditions are encountered, the right geotechnical staff is available to review the situation in the field and review bridge approach and foundation design modifications quickly.
Appendices
Offerors shall furnish a copy of this Statement of Qualifications (SOQ) Checklist, with the page references added, with the Statement of Qualifications.

<table>
<thead>
<tr>
<th>Statement of Qualifications Component</th>
<th>Form (if any)</th>
<th>RFQ Cross reference</th>
<th>Included within 15-page limit?</th>
<th>SOQ Page Reference</th>
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Attachment 2.10

Acknowledgement of the RFQ, Revision and/or Addenda
ATTACHMENT 2.10

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

RFQ NO.  C00107116DB85
PROJECT NO.:  0081-095-038

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 09/25/2015 (Date)
2. Cover letter of RFQ Addendum No. 1 10/15/2015 (Date)
3. Cover letter of  

[Signature] 11/09/2015 (Date)

[Printed Name] Vice President
3.2.6
Affiliated and/or Subsidiary Companies of the Offeror
# 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.**

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<tr>
<th>Relationship with Offeror (Affiliate or Subsidiary)</th>
<th>Full Legal Name</th>
<th>Address</th>
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<td>Affiliate (Parent)</td>
<td>Wagman, Inc.</td>
<td>3290 North Susquehanna Trail, York, PA 17406</td>
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<tr>
<td>Affiliate</td>
<td>Wagman Construction, Inc.</td>
<td>3290 North Susquehanna Trail, York, PA 17406</td>
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<tr>
<td>Affiliate</td>
<td>Wagman Investments, Ltd.</td>
<td>3290 North Susquehanna Trail, York, PA 17406</td>
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3.2.7
Certification Regarding Debarment Forms (Primary and Lower Tier)
ATTACHMENT NO. 3.2.7(a)
CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project No.: 0081-095-038
Contract ID#: C00107116DB85

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

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

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

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

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

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

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

Signature  
Date  
Title  

WAGMAN HEAVY CIVIL, INC.
Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0081-095-038
Contract ID#: C00107116DB85

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

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

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

[Signature]

[Date]

Senior Vice President

Title

Johnson, Mirmiran & Thompson, Inc.

Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0081-095-038
Contract ID#: C00107116DB85

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.

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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] November 3, 2015 [Vice President]
[Date] [Title]

DMY Engineering Consultants Inc.
Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0081-095-038
Contract ID#: C00107116DB85

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.

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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]
November 3, 2015
[Title]

Quinn Consulting Services, Inc.
Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0081-095-038
Contract ID#: C00107116DB85

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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] 11/6/2015  CEO
[Date] [Title]

Froehling & Robertson, Inc.

Name of Firm
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0081-095-038
Contract ID#: C00107116DB85

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

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

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

[Signature] [November 2, 2015] [President]
[Date] [Title]

NXL Construction Services, Inc.
Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0081-095-038
Contract ID#: C00107116DB85

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

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

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

[Signature] [Date] [Title]

Name of Firm
3.2.8
VDOT Prequalification Certificate
Vendor ID: W002
Vendor Name: WAGMAN HEAVY CIVIL, INC.
Prequal Exp: 12/31/2015

-- PREQ Address --
3290 NORTH SUSQUEHANNA TRAIL
YORK, PA 17406-9754
Phone: 717-764-8521
Fax: 717-764-2799

Work Classes (Listed But Not Limited To)
003 - MAJOR STRUCTURES
007 - MINOR STRUCTURES
011 - CLEARING AND GRUBBING
080 - DEMOLITION OF STRUCTURES
101 - EXCAVATING

Bus. Contact: BECKER, TODD EUGENE
Email: ESTIMATING@WAGMAN.COM

-- DBE Information --
DBE Type: N/A
DBE Contact: N/A
3.2.9
Surety Letter
October 27, 2015

Virginia Department of Transportation
1401 E. Broad Street
Richmond, VA 23219

Re: A Design-Build Project
   Contract ID #C00107116DBB5
   State Project No.: 0081-095-038
   Replacement of I-81 Structures 18942 & 18944 over Rte 808
   Halls Bottom Rd and Sinking Creek
   From: 0.94 Miles Northeast of Rte F310
   To: 1.83 Miles Southwest of Rte. 611 Spring Creek Rd.
   Washington County, Virginia

Dear Sirs:

As surety for Wagman Heavy Civil, Inc., Western Surety Company, with A.M. Best Financial Strength Rating “A” and Financial Size Category “XV”, is capable of obtaining 100% Performance and 100% Labor and Materials Payment Bonds in the amount of $13,000,000 (estimated contract value) and said bonds will cover the project and any warranty periods on behalf of the Contractor, in the event that such firm be the successful bidder and enter into a contract for this project.

Sincerely,
Western Surety Company

By: Patricia C. Robinson
   Attorney-in-Fact
Western Surety Company

POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT

Know All Men By These Presents, That WESTERN SURETY COMPANY, a South Dakota corporation, is a duly organized and existing corporation having its principal office in the City of Sioux Falls, and State of South Dakota, and that it does by virtue of the signature and seal herein affixed hereby make, constitute and appoint

James R Gould, Joseph G Buyakowski, Alson O Wolcott Jr, Eugene M Fritz, Patricia C Robinson, Kathy R Reisinger, Donald R Wert, Individually

of Mechanicsburg, PA, its true and lawful Attorney(s)-in-Fact with full power and authority hereby conferred to sign, seal and execute for and on its behalf bonds, undertakings and other obligatory instruments of similar nature

- In Unlimited Amounts -

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

This Power of Attorney is made and executed pursuant to and by authority of the By-Law printed on the reverse hereof, duly adopted, as indicated, by the shareholders of the corporation.

In Witness Whereof, WESTERN SURETY COMPANY has caused these presents to be signed by its Vice President and its corporate seal to be hereto affixed on this 15th day of June, 2015.

WESTERN SURETY COMPANY

State of South Dakota
County of Minnehaha } ss

Paul T. Bruflat, Vice President

On this 15th day of June, 2015, before me personally came Paul T. Bruflat, to me personally known, who, being by me duly sworn, did depose and say: that he resides in the City of Sioux Falls, State of South Dakota; that he is the Vice President of WESTERN SURETY COMPANY described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed pursuant to authority given by the Board of Directors of said corporation and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said corporation.

My commission expires

February 12, 2021

S. Eich, Notary Public

CERTIFICATE

I, L. Nelson, Assistant Secretary of WESTERN SURETY COMPANY do hereby certify that the Power of Attorney hereinabove set forth is still in force, and further certify that the By-Law of the corporation printed on the reverse hereof is still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said corporation this 27th day of October 2015.

L. Nelson, Assistant Secretary

Form F4280-7-2012
Authorizing By-Law

ADOPTED BY THE SHAREHOLDERS OF WESTERN SURETY COMPANY

This Power of Attorney is made and executed pursuant to and by authority of the following By-Law duly adopted by the shareholders of the Company.

Section 7. All bonds, policies, undertakings, Powers of Attorney, or other obligations of the corporation shall be executed in the corporate name of the Company by the President, Secretary, and Assistant Secretary, Treasurer, or any Vice President, or by such other officers as the Board of Directors may authorize. The President, any Vice President, Secretary, any Assistant Secretary, or the Treasurer may appoint Attorneys in Fact or agents who shall have authority to issue bonds, policies, or undertakings in the name of the Company. The corporate seal is not necessary for the validity of any bonds, policies, undertakings, Powers of Attorney or other obligations of the corporation. The signature of any such officer and the corporate seal may be printed by facsimile.
3.2.10
SCC and DPOR Tables and Supporting Registrations
ATTACHMENT 3.2.10

State Project No. **0081-095-038**, Contract ID#: **C00107116DB85**

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.

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<th>DPOR Information (3.2.10.2)</th>
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<td>DMY Engineering Consultants Inc.</td>
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<td>NXL Construction Services, Inc.</td>
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<td>S&amp;ME, Inc.</td>
<td>F115456-8</td>
<td>Corporation</td>
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# ATTACHMENT 3.2.10

State Project No. **0081-095-038**, Contract ID#: **C00107116DB85**

**SCC and DPOR Information**

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<th>Business Name</th>
<th>SCC Information (3.2.10.1)</th>
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<td>Froehling &amp; Robertson, Inc.</td>
<td>0027211-2</td>
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### DPOR INFORMATION FOR INDIVIDUALS (RFQ Sections 3.2.10.3 and 3.2.10.4)

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<th>Business Name</th>
<th>Individual's Name</th>
<th>Office Location Where Professional Services will be Provided (City/State)</th>
<th>Individual's DPOR Address</th>
<th>DPOR Type</th>
<th>DPOR Registration Number</th>
<th>DPOR Expiration Date</th>
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<tr>
<td>Johnson, Mirmiran &amp; Thompson, Inc.</td>
<td>Arthelius Phaup III, PE</td>
<td>Richmond, VA</td>
<td>402 Waveny Road Richmond, VA 23229</td>
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<td>0402023335</td>
<td>06-30-2016</td>
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<td>NXL Construction Services, Inc.</td>
<td>Joe Hamed, PE, CCM, PMP, DBIA</td>
<td>Christiansburg, VA</td>
<td>110 Wenn Drive Christiansburg VA 24073</td>
<td>PE</td>
<td>0402039327</td>
<td>02-29-2016</td>
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1

SCC Business Entity Registration Information
CISM0180
CORPORATE DATA INQUIRY

CORP ID: E019696 - 8
CORP NAME: Wagman Heavy Civil, Inc.

DATE OF CERTIFICATE: 09/20/1967 PERIOD OF DURATION: 00
STATE OF INCORPORATION: PA PENNSYLVANIA STOCK INDICATOR: S STOCK
MERGER IND: CONVERSION/DOMESTICATION IND:
GOOD STANDING IND: Y MONITOR INDICATOR:
CHARTER FEE: 2500.00 MON NO: 0 MON STATUS: 0 MONITOR DTE:
R/A NAME: CORPORATION SERVICE COMPANY

STREET: BANK OF AMERICA CENTER AR RTN MAIL:
16TH FLOOR, 1111 EAST MAIN STREET
CITY: RICHMOND STATE: VA ZIP: 23219-0000
R/A STATUS: S B.E. AUTH IN VI EFF. DATE: 09/11/12 LOC: 216
ACCEPTED AR#: 215 15 0668 DATE: 09/30/15
CURRENT AR#: 215 15 0668 DATE: 09/30/15 STATUS: A
YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES
15 1,700.00

(Screen Id:/Corp_Data_Inquiry)
CISM0180  CORPORATE DATA INQUIRY

CORP ID: F149901  STATUS: 00 ACTIVE  STATUS DATE: 10/17/06
CORP NAME: Johnson, Mirmiran & Thompson, Inc.

DATE OF CERTIFICATE: 10/17/2006  PERIOD OF DURATION: INDUSTRY CODE: 70
STATE OF INCORPORATION: MD MARYLAND  STOCK INDICATOR: S STOCK
MERGER IND:  CONVERSION/DOMESTICATION IND:
GOOD STANDING IND: Y  MONITOR INDICATOR:
CHARTER FEE: 50.00  MON NO: MON STATUS: MONITOR DTE:
R/A NAME: ROBERT GALLAGHER

STREET: 9201 ARBORETUM PKY STE 140  AR RTN MAIL:

CITY: RICHMOND  STATE: VA  ZIP: 23236-0000
R/A STATUS: 2 OFFICER  EFF. DATE: 09/06/07  LOC: 120
ACCEPTED AR#: 215 13 8975  DATE: 09/08/15  CHESTERFIELD CO
CURRENT AR#: 215 13 8975  DATE: 09/08/15  STATUS: A  ASSESSMENT INDICATOR: 0
YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES
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(Screen Id:/Corp_Data_Inquiry)
**CISM0180**

**CORPORATE DATA INQUIRY**

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| STATUS: | 00 ACTIVE |
| STATUS DATE: | 10/23/14 |
| CORP NAME: | DMY ENGINEERING CONSULTANTS INC. |
| DATE OF CERTIFICATE: | 09/06/2013 |
| PERIOD OF DURATION: | |
| INDUSTRY CODE: | 00 |
| STATE OF INCORPORATION: | VA VIRGINIA |
| STOCK INDICATOR: | S STOCK |
| MERGER IND: | |
| CONVERSION/DOMESTICATION IND: | Y |
| GOOD STANDING IND: | Y |
| MONITOR INDICATOR: | |
| CHARTER FEE: | 50.00 |
| MON NO: | |
| MON STATUS: | |
| R/A STATUS: | 1 DIRECTOR |
| EFF. DATE: | 09/06/13 |
| LOCATION: | LOUDOUN COUNTY |
| STREET: | 45662 TERMINAL DRIVE |
| SUITE: | 110 |
| CITY: | DULLES |
| STATE: | VA |
| ZIP: | 20166-0000 |
| AR RTN MAIL: | |
| ACCEPTED AR#: | 215 13 6121 |
| DATE: | 08/31/15 |
| CURRENT AR#: | 215 13 6121 |
| DATE: | 08/31/15 |
| STATUS: | A |
| ASSESSMENT INDICATOR: | 0 |
| YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES | 15 130.00 | |

(Screen Id:/Corp_Data_Inquiry)
CISM0180  CORPORATE DATA INQUIRY

CORP ID: 0492551 - 7      STATUS: 00 ACTIVE      STATUS DATE: 12/01/08
CORP NAME: QUINN CONSULTING SERVICES INCORPORATED

DATE OF CERTIFICATE: 10/24/1997 PERIOD OF DURATION:  INDUSTRY CODE: 00
STATE OF INCORPORATION: VA VIRGINIA   STOCK INDICATOR: S STOCK
MERGER IND: S SURVIVOR   CONVERSION/DOMESTICATION IND:
GOOD STANDING IND: Y   MONITOR INDICATOR:
CHARTER FEE: 50.00   MON NO:   MON STATUS: MONITOR DTE:
R/A NAME: JOHN H QUINN JR

STREET: 2208 S KNOLL ST   AR RTN MAIL:

CITY: ARLINGTON   STATE: VA ZIP: 22202-2134
R/A STATUS: 4 ATTORNEY   EFF. DATE: 10/24/97 LOC : 106
ACCEPTED AR#: 215 14 0713 DATE: 09/08/15   ARLINGTON COUNT
CURRENT AR#: 215 14 0713 DATE: 09/08/15 STATUS: A ASSESSMENT INDICATOR: 0
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CISM0180  CORPORATE DATA INQUIRY

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CORP NAME: S&ME, INC.

DATE OF CERTIFICATE: 10/29/1997  PERIOD OF DURATION:  INDUSTRY CODE: 00
STATE OF INCORPORATION: NC NORTH CAROLINA  STOCK INDICATOR: S STOCK
MERGER IND: S SURVIVOR  CONVERSION/DOMESTICATION IND:
GOOD STANDING IND: Y  MONITOR INDICATOR:
CHARTER FEE: 1900.00  MON NO:  MON STATUS:   MONITOR DTE:
R/A NAME: NATIONAL CORPORATE RESEARCH, LTD.

STREET: 250 BROWNS HILL COURT  AR RTN MAIL:

CITY: MIDLOTHIAN  STATE: VA  ZIP: 23114-0000
R/A STATUS: 5 B.E. AUTH IN VI  EFF. DATE: 02/02/12  LOC : 120
ACCEPTED AR#: 215 15 1546  DATE: 10/01/15  CHESTERFIELD CO
CURRENT AR#: 215 15 1546  DATE: 10/01/15  STATUS: A  ASSESSMENT INDICATOR: 0
YEAR FEES PENALTY INTEREST TAXES  BALANCE  TOTAL SHARES
15 1,700.00

(Screen Id:/Corp_Data_Inquiry)
2

DPOR Registration Documentation
DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA
9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 357-8500

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS
AND LANDSCAPE ARCHITECTS
BUSINESS ENTITY BRANCH OFFICE REGISTRATION

PROFESSIONS: ENG, LS

JOHNSON, MIRMIRAN & THOMPSON, INC.
9201 ARBORETUM PKWY
SUITE 310
RICHMOND, VA 23236

Nick A. Christner
Interim Director

(SEE REVERSE SIDE FOR NAME AND/OR ADDRESS CHANGE)

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THAN THOSE NAMED MAY RESULT IN CRIMINAL PROSECUTION UNDER THE CODE OF VIRGINIA.
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AND LANDSCAPE ARCHITECTS
BUSINESS ENTITY BRANCH OFFICE REGISTRATION

PROFESSIONS: ENG, LS

JOHNSON MIRIMIRAN & THOMPSON INC
13921 PARK CENTER RD
SUITE 140
HERNDON, VA 20171
JOHNSON MIRMIRAN & THOMPSON INC
272 BENDIX ROAD
SUITE 260
VIRGINIA BEACH, VA 23452
BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS
AND LANDSCAPE ARCHITECTS
BUSINESS ENTITY REGISTRATION

PROFESSIONS: ENG, LA, ARC, LS

JOHNSON MIRMIRAN & THOMPSON INC
72 LOVETON CIRCLE
SPARKS, MD 21152
DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
12-31-2015

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS
AND LANDSCAPE ARCHITECTS
BUSINESS ENTITY REGISTRATION

PROFESSIONS: ENG

DMY ENGINEERING CONSULTANTS INC
45662 TERMINAL DRIVE
SUITE 110
DULLES, VA 20166

(SEE REVERSE SIDE FOR NAME AND/OR ADDRESS CHANGE)
BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS AND LANDSCAPE ARCHITECTS

BUSINESS ENTITY REGISTRATION

PROFESSIONS: ENG, LS

NXL CONSTRUCTION CO INC
NXL CONSTRUCTION SERVICES INC
114 E CARY ST STE 200
RICHMOND, VA 23219

(SEE REVERSE SIDE FOR NAME AND/OR ADDRESS CHANGE)
BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS 
AND LANDSCAPE ARCHITECTS 
BUSINESS ENTITY BRANCH OFFICE REGISTRATION 

PROFESSIONS: ENG 

NXL CONSTRUCTION COMPANY INC 
110 WENN DRIVE 
CHRISTIANSBURG, VA 24073 

(SEE REVERSE SIDE FOR NAME AND/OR ADDRESS CHANGE)
BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS
AND LANDSCAPE ARCHITECTS
BUSINESS ENTITY REGISTRATION

PROFESSIONS: ENG

FROEHLING & ROBERTSON, INC
3015 DUMBARTON ROAD
RICHMOND, VA 23228

(SHOWN REVERSE SIDE FOR NAME AND/OR ADDRESS CHANGE)
BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS AND LANDSCAPE ARCHITECTS
BUSINESS ENTITY BRANCH OFFICE REGISTRATION

PROFESSIONS: ENG

FROEHLING ROBERTSON INC
1734 SEIBEL DR N E
ROANOKE, VA 24012

Nick A. Christner, Interim Director

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DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

NUMBER
0407003733

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS
AND LANDSCAPE ARCHITECTS
BUSINESS ENTITY REGISTRATION

PROFESSIONS: ENG

QUINN CONSULTING SERVICES INC
14160 NEWBROOK DR
SUITE 220
CHANTILLY, VA 20151

(SEE REVERSE SIDE FOR NAME AND/OR ADDRESS CHANGE)

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA
BOARD FOR APESCLIDLA
BUSINESS ENTITY REGISTRATION
NUMBER: 0407003733  EXPIRES: 12-31-2015
PROFESSIONS: ENG
QUINN CONSULTING SERVICES INC
14160 NEWBROOK DR
SUITE 220
CHANTILLY, VA 20151

ALTERATION OF THIS DOCUMENT, USE AFTER EXPIRATION, OR USE BY PERSONS OR FIRMS OTHER THAN THOSE NAMED MAY RESULT IN CRIMINAL PROSECUTION UNDER THE CODE OF VIRGINIA.
DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA
9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-6500

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS
AND LANDSCAPE ARCHITECTS
BUSINESS ENTITY BRANCH OFFICE REGISTRATION

PROFESSIONS: ENG

QUINN CONSULTING SERVICES INC
1801 PLEASURE HOUSE RD
STE 101 & 102
VIRGINIA BEACH, VA 23455

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COMMONWEALTH OF VIRGINIA

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS
AND LANDSCAPE ARCHITECTS
BUSINESS ENTITY BRANCH OFFICE REGISTRATION

PROFESSIONS: ENG

S&ME, INC
644 EASTERN STAR ROAD
KINGSPORT, TN 37663

Nick A. Christner, Interim Director
.3 Documentation
DPOR Key Personnel
DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPRES ON
06-30-2016

BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS AND LANDSCAPE ARCHITECTS
PROFESSIONAL ENGINEER LICENSE

ARTHIELUS AUGUSTUS PHAUP III
402 WAVENY ROAD
RICHMOND, VA 23229

(SEE REVERSE SIDE FOR NAME AND/OR ADDRESS CHANGE)
3.3.1
Key Personnel Resume Forms
## ATTACHMENT 3.3.1
### KEY PERSONNEL RESUME FORM

<table>
<thead>
<tr>
<th>Brief Resume of Key Personnel anticipated for the Project.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>a. Name &amp; Title:</strong> Jorge D. Gambini, MCE - Senior Project Manager</td>
</tr>
<tr>
<td><strong>b. Project Assignment:</strong> Design-Build Project Manager (DBPM)</td>
</tr>
<tr>
<td><strong>c. Name of Firm with which you are now associated:</strong> Wagman Heavy Civil, Inc.</td>
</tr>
<tr>
<td><strong>d. Years experience: With this Firm:</strong></td>
</tr>
<tr>
<td>Please list chronologically (most recent experience 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 experience, please list the experience for those years you have worked. Project specific experience shall be included in Section (g) below):</td>
</tr>
<tr>
<td>Mr. Gambini has over 15 years of experience with project management. He has served in a management role on local and international construction projects such as infrastructure and oil and gas pipelines, and has successfully delivered significant projects including Design-Build, Bridges and Highway Rehabilitation. His background includes structural and construction engineering, project plans and documentation, budget and cost control, procurement and project oversight, estimating and scheduling, value engineering proposals, and staff development and supervision.</td>
</tr>
<tr>
<td><strong>Wagman Heavy Civil, Inc. – Dinwiddie, VA</strong></td>
</tr>
<tr>
<td><strong>Start Date:</strong> 2015</td>
</tr>
<tr>
<td><strong>Responsibilities:</strong> Mr. Gambini is a Senior Project Manager for Wagman Heavy Civil. His responsibilities include estimating, project schedules, cost control, subcontractor management, proposal preparation, financial, quality control and management.</td>
</tr>
<tr>
<td><strong>HRI, Inc. – State College, PA</strong></td>
</tr>
<tr>
<td><strong>Start Date:</strong> 2013</td>
</tr>
<tr>
<td><strong>Responsibilities:</strong> As a Project Manager, Mr. Gambini managed the completion of three highly demanding time schedule projects. His responsibilities included overall construction, schedule, quality and safety in his projects.</td>
</tr>
<tr>
<td><strong>Corman South – Richmond, VA</strong></td>
</tr>
<tr>
<td><strong>Start Date:</strong> 2008</td>
</tr>
<tr>
<td><strong>Responsibilities:</strong> Mr. Gambini was a Project Manager for four VDOT Projects, Construction Manager for One Design-Build Project and Project Engineer for three VDOT Projects. His responsibilities included estimating, proposal preparation, financial management, and supervising the quality and safety of his projects. His notable accomplishments were to successfully complete highly demanding and technical projects on time and on budget, as well as maintaining transparency with all stakeholders.</td>
</tr>
<tr>
<td><strong>Kelly Brothers, Inc. – Fort Myers, FL</strong></td>
</tr>
<tr>
<td><strong>Start Date:</strong> 2005</td>
</tr>
<tr>
<td><strong>Responsibilities:</strong> As Project Engineer, Mr. Gambini engaged in challenging marine projects and bridge replacements. Among his responsibilities were the daily supervision of construction activities to ensure project delivery that met or exceeded all expectations on quality, timeliness and budget. The projects were located in environmentally sensitive areas with presence of endangered species (manatees) requiring following strict environmental constraints.</td>
</tr>
<tr>
<td><strong>Spie Capag – Cergy, France</strong></td>
</tr>
<tr>
<td><strong>Start Date:</strong> 2000</td>
</tr>
<tr>
<td><strong>Responsibilities:</strong> As Project Controls, Mr. Gambini participated in two international projects under strict and highly technical specifications established by CM Firms such as Bechtel and British Petroleum. Among his responsibilities, Mr. Gambini created and updated an as-built complex resource loaded schedule for the Antamina Mine Pipeline Construction in Peru (2000). In the Republic of Georgia (2003), Mr. Gambini organized and supervised the document control and scheduling in support of site management for the construction of the BTC Pipeline.</td>
</tr>
<tr>
<td><strong>Summary of Relevant Experience</strong></td>
</tr>
<tr>
<td>- 15 Years of Experience</td>
</tr>
<tr>
<td>- Bridge/Structures Experience</td>
</tr>
<tr>
<td>- Constructibility Reviews</td>
</tr>
<tr>
<td><strong>e. Education: Name &amp; Location of Institution(s)/Degree(s)/Year/ Specialization:</strong></td>
</tr>
<tr>
<td>North Carolina State University/Master of Civil Engineering/Construction Engineering &amp; Management</td>
</tr>
<tr>
<td>Pontifical Catholic University of Peru/Bachelor of Science/Civil Engineering</td>
</tr>
<tr>
<td><strong>f. Active Registration: Year First Registered/ Discipline/ VA Registration #:</strong></td>
</tr>
<tr>
<td><strong>g. Document the extent and depth of your experience and qualifications relevant to the Project.</strong></td>
</tr>
<tr>
<td>1. <strong>Note your specific responsibilities and authorities for each project, not those of the firm.</strong></td>
</tr>
<tr>
<td>2. <strong>Note whether experience is with current firm or with other firm.</strong></td>
</tr>
<tr>
<td>3. <strong>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</strong></td>
</tr>
<tr>
<td>(List at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.)</td>
</tr>
<tr>
<td>* On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.</td>
</tr>
<tr>
<td>(1.) VDOT I-64 over Buckingham Railroad, VA ($7.8M) - Project Manager. Rehabilitation of the I-64 Twin bridges over CSX Railroad and the Shockoe Creek, which consisted of the jacking and blocking for the bridge bearings replacement, structural steel and shotcrete repairs. The team successfully presented and secured the approval of a $2.9M Value Engineering Proposal for the deck rehabilitation using fast track “dry-hydro demolition” and latex overlay reducing the impact to the traveling public to eight weekends, instead of many lane closures that would impact the traveling public for over 1.5 years.</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td><strong>Firm:</strong> Corman Construction / <strong>Project Dates:</strong> 2011 - 2012</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(2.) VDOT Route 360 over the Rappahannock River, VA ($4.9M) - Project Manager. Rehabilitation of a 5,604-foot bridge: jacking and blocking to replace the bridge bearings, substructure and concrete girder repairs, mostly using shotcrete techniques. The contract also included deck rehabilitation and joints replacement. To reduce the lane closures needed and to reduce the impact to the traveling public, the team performed 97% of the project from barges using cranes and manlifts.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Firm:</strong> Corman Construction / <strong>Project Dates:</strong> 2010 - 2012</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(3.) VDOT Design-Build Multi-Culvert Rehabilitation Region 2, VA ($3.2M) – Design-Build Construction Manager. Design-Build Project for the replacement and rehabilitation of drainage culverts. The project included the replacement of one CMP and two concrete box culverts and also the rehabilitation six culverts using shotcrete and re-lining techniques. This project encompassed nine locations that spread across three VDOT districts. The team undertook extensive constructability reviews to overcome ROW limitations.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Firm:</strong> Corman Construction / <strong>Project Dates:</strong> 2010 - 2011</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(4.) Chesterfield County, Woolridge Road over Swift Creek Reservoir, VA ($7.4M) - Senior Project Engineer. Road widening to four lanes with a raised median and realignment using rock embankment to cross the reservoir. Three box culverts were replaced with a concrete girders bridge. The existing waterline was relocated and traffic signals replaced. Due to the project being located over the drinking water source for Chesterfield County, the demanding environmental restrictions, and the time constraints, this project was granted the VTCA 2011 Overall Winner Award.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Firm:</strong> Corman Construction / <strong>Project Dates:</strong> 2009 - 2010</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(5.) VDOT, Route 608 Bridge over I-95, VA ($2.8M) - Project Engineer. This two phase bridge widening and rehabilitation project consisted on widening the substructure, adding steel plate girders, jacking and blocking, replace existing bearings and shotcrete repairs. The superstructure was replaced using lightweight Concrete under the “VDOT End Result Specifications.” Two value engineering proposals were approved to expedite construction by changing the pile foundations and the superstructure framing plan that allowed traffic of wide loads during construction, the use of the split span concept for forming decks in phased bridge replacement.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Firm:</strong> Corman Construction / <strong>Project Dates:</strong> 2008 - 2010</td>
</tr>
</tbody>
</table>

*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. Not applicable for DBPM*
**Brief Resume of Key Personnel anticipated for the Project.**

<table>
<thead>
<tr>
<th>Name &amp; Title:</th>
<th>Joe Hamed, PE, CCM, PMP, DBIA  Project Manager / Quality Assurance Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Assignment:</td>
<td>Quality Assurance Manager (QAM)</td>
</tr>
<tr>
<td>Name of Firm with which you are now associated:</td>
<td>NXL</td>
</tr>
<tr>
<td>Years experience:</td>
<td>With this Firm <strong>4.5</strong> Years With Other Firms <strong>26</strong> Years</td>
</tr>
</tbody>
</table>

Please list chronologically (most recent experience 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 experience, please list the experience for those years you have worked. Project specific experience shall be included in Section (g) below):

### 1. NXL Construction Services, Inc.

| Start Date: | 5/2011  |
| End Date: | Present  |
| Position: | Project Manager / QAM  |
| Responsibilities: | Independent QA/QC Manager for Design-Build Projects  |

### 2. Virginia Department of Transportation

| Start Date: | 1/2011  |
| End Date: | 5/2011  |
| Position: | Area Construction Engineer – Salem District  |
| Responsibilities: | Managed the delivery of Salem District Southern Construction Area Construction Program  |

### 3. Virginia Department of Transportation (Southern Region Operations)

| Start Date: | 10/2006  |
| End Date: | 1/2011  |
| Position: | Program Delivery Manager  |
| Responsibilities: | Provided oversight of all SW Region Operations project delivery including planning, programming, and project development & construction  |

### 4. Virginia Department of Transportation

| Start Date: | 5/2005  |
| End Date: | 10/2006  |
| Position: | Area Construction Engineer  |
| Responsibilities: | Managed the delivery of Salem District Southern Construction Area Construction Program  |

### 5. Virginia Department of Transportation

| Start Date: | 8/2004  |
| End Date: | 5/2005  |
| Position: | Project Manager  |
| Responsibilities: | Provided constructability, E&S, and safety reviews for design and construction projects  |

### 6. HNTB Corporation

| Start Date: | 3/2004  |
| End Date: | 7/2004  |
| Position: | Resident Engineer  |
| Responsibilities: | Documented project progress and provided reports to key team members; performed E&S reviews, and provided engineering support  |

### 5. Louis Berger Group, Inc.

| Start Date: | 4/1999  |
| End Date: | 3/2004  |
| Position: | Project Manager / Project Engineer  |
| Responsibilities: | Oversight and documentation of project, ensuring compliance, administration/reviewing/monitoring daily work and performance  |

### Summary of Relevant Experience

- **26+ Years of Experience**
- Experience performing
- Roadway Widening Experience
- Bridge/Superstructure Experience Constructability/Bidability Reviews QA/QC and Project Management
- Southwest VA experience Engineer Support Services experience Design-Build Experience

### Education:

- Name & Location of Institution(s)/Degree(s)/Year/Specialization: University of Idaho / BS / 1990 / Civil Engineering

### Active Registration:

- Year First Registered/Discipline/VA Registration #: 2004 / VA Professional Engineer / 039327; 2005 / Project Management Professional; 2012 / Certified Construction Manager; 2015 / Design-Build Institute of America

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

1. **Note your specific responsibilities and authorities 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 at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.)

* On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.*
<table>
<thead>
<tr>
<th>Project Description</th>
<th>Location</th>
<th>Scope Activities</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>(2.) I-81 Corridor Safety &amp; Operational Improvements (Montgomery County, VA) – QAM</td>
<td>NXL Construction Services, Inc.</td>
<td>- VDOT Design Build&lt;br&gt;- Performed DB QAM&lt;br&gt;- High ADT&lt;br&gt;- Interstate Construction&lt;br&gt;- Structures&lt;br&gt;- Roadway&lt;br&gt;- Complex Traffic Shifts</td>
<td>5/2011 – 8/2013</td>
</tr>
<tr>
<td>(3.) I-581 &amp; Valley View Boulevard Interchange Improvements (Roanoke, VA) – QAM</td>
<td>NXL Construction Services, Inc.</td>
<td>- VDOT Design Build&lt;br&gt;- Performed DB QAM&lt;br&gt;- High ADT&lt;br&gt;- Interstate Construction&lt;br&gt;- Structures&lt;br&gt;- Roadway&lt;br&gt;- Complex Traffic Shifts</td>
<td>7/2013 – Present</td>
</tr>
<tr>
<td>(4.) Route 60 / Main Street Bridge Replacement (Clifton Forge, VA) – QAM</td>
<td>NXL Construction Services, Inc.</td>
<td>- VDOT Design Build&lt;br&gt;- Performed DB QAM&lt;br&gt;- Structures&lt;br&gt;- Roadway&lt;br&gt;- Complex Traffic Shifts</td>
<td>5/2011 – 10/2012</td>
</tr>
<tr>
<td>(5.) Multi-Bridge Replacement Projects (Staunton, Culpeper, NOVA Districts) – QAM</td>
<td>NXL Construction Services, Inc.</td>
<td>- VDOT Design Build&lt;br&gt;- Performed DB QAM&lt;br&gt;- Structures&lt;br&gt;- Roadway&lt;br&gt;- Complex Traffic Shifts</td>
<td>5/2011 – 10/2012</td>
</tr>
</tbody>
</table>

- 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.
**ATTACHMENT 3.3.1**

**KEY PERSONNEL RESUME FORM**

**Brief Resume of Key Personnel anticipated for the Project.**

<table>
<thead>
<tr>
<th>a. Name &amp; Title:</th>
<th>Trip Phaup, PE  Vice President</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. Project Assignment:</td>
<td>Design Manager (DM)</td>
</tr>
<tr>
<td>c. Name of Firm with which you are now associated:</td>
<td>Johnson, Mirmiran &amp; Thompson, Inc.</td>
</tr>
<tr>
<td>d. Years experience: With this Firm</td>
<td>6 Years</td>
</tr>
<tr>
<td>With Other Firms</td>
<td>20 Years</td>
</tr>
</tbody>
</table>

Please list chronologically (most recent experience 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 experience, please list the experience for those years you have worked. Project specific experience shall be included in Section (g) below):

**Johnson, Mirmiran & Thompson, Inc.**

<table>
<thead>
<tr>
<th>Start Date:</th>
<th>March 2013</th>
<th>End Date:</th>
<th>Present</th>
<th>Position:</th>
<th>Vice President</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsibilities:</td>
<td>Serves as Vice President responsible for business development, strategic growth, operations, and staff development in the Transportation service line of JMT’s Virginia offices. Major responsibilities focus on growing JMT’s bridge and structure capabilities and clients including the Virginia Department of Transportation and Virginia localities. Currently oversees a staff of six (6) bridge engineers and technicians and serves as Project Manager on a VDOT Structure and Bridge Division Statewide Task Order Contract, a City of Hampton Bridge Inspection Contract for 39 bridges and culverts, and a City of Newport News contract for the replacement of the bridge on Route 105 (Fort Eustis Boulevard) over the Newport News (Lee Hall) Reservoir. Serves as Task Manager for bridge and structure design on other JMT’s task order and project specific contracts.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Johnson, Mirmiran & Thompson, Inc.**

<table>
<thead>
<tr>
<th>Start Date:</th>
<th>March 2009</th>
<th>End Date:</th>
<th>March 2013</th>
<th>Position:</th>
<th>Project Manager/Senior Engineer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsibilities:</td>
<td>Served as Project Manager accountable for the quality, schedule, and budget on assigned road and bridge projects. Performed structural design and quality control reviews of structural design of highway and miscellaneous structures including preparing design calculations, plan details, construction cost estimates, and special provisions. Provided construction engineering design services for contractors including sheeting and shoring, cofferdam, and other temporary structure design, and value engineering redesigns of awarded projects. Performed quality assurance reviews of construction plans for bridges and structures for VDOT under an On-Call Quality Plan Review contract.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CH2M Hill**

<table>
<thead>
<tr>
<th>Start Date:</th>
<th>June 2008</th>
<th>End Date:</th>
<th>February 2009</th>
<th>Position:</th>
<th>Group Leader/Project Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsibilities:</td>
<td>Served as Group Leader overseeing the performance and development of a staff of transportation engineers and technicians. Served as Project Manager accountable for the quality, schedule, and budget on numerous transportation projects. Performed structural design and quality control reviews of structural design of highway and miscellaneous structures including preparing design calculations, plan details, construction cost estimates, and special provisions. Performed quality assurance reviews of construction plans for bridges and structures for VDOT under a General Engineering Consultant contract.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**STV/Ralph Whitehead Associates**

<table>
<thead>
<tr>
<th>Start Date:</th>
<th>September 2003</th>
<th>End Date:</th>
<th>May 2008</th>
<th>Position:</th>
<th>Group Leader/Project Manager/Senior Engineer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsibilities:</td>
<td>Served as Group Leader overseeing the performance and development of a staff of structural engineers and technicians. Served as Project Manager accountable for the quality, schedule, and budget on numerous bridge and structures projects. Performed structural design and quality control reviews of structural design of highway, railway, and miscellaneous structures including preparing design calculations, plan details, construction cost estimates, and special provisions. Reviewed shop drawings and provided consultation during construction. Provided construction engineering design services for contractors including sheeting and shoring, cofferdam, and other temporary structure design, and value engineering redesigns of awarded projects.</td>
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</tbody>
</table>

**Earth Tech**

<table>
<thead>
<tr>
<th>Start Date:</th>
<th>December 1999</th>
<th>End Date:</th>
<th>August 2003</th>
<th>Position:</th>
<th>Group Leader/Project Manager/Senior Engineer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsibilities:</td>
<td>Served as Group Leader overseeing the performance and development of a staff of structural engineers and technicians. Served as Project Manager accountable for the quality, schedule, and budget on numerous bridge and structures projects including Design-Build projects. Performed structural design and quality control reviews of structural design of highway and miscellaneous structures including preparing design calculations, plan details, construction cost estimates, and special provisions. Reviewed shop drawings and provided consultation during construction.</td>
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</tbody>
</table>

**Summary of Relevant Experience**

- 26 years of VDOT Bridge Design Experience
- Extensive Design-Build Experience
- Recently Completed Bridge and Interstate Projects in Bristol District

**e. Education:**

- Virginia Commonwealth University, Richmond, VA / Masters of Business Administration / 2002 / Business
- Virginia Tech, Blacksburg, VA / Masters of Science / 1988 / Civil Engineering emphasis in Structures
- Virginia Tech, Blacksburg, VA / Bachelor of Science / 1987 / Civil Engineering

**f. Active Registration:**

- 1992 / Professional Engineer / 23335
9. Document the extent and depth of your experience and qualifications relevant to the Project.
   1. Note your specific responsibilities and authorities 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 at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.)

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

<table>
<thead>
<tr>
<th>Project</th>
<th>Details and Responsibilities</th>
<th>Firm</th>
<th>Project Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Route 61 (MacArthur Avenue) over the New River, Route 460, and Old Virginia Avenue Bridge Replacement, Town of Narrows, VA - DB Design Manager and Lead Structural Engineer. Responsible for the Route 61 Bridge Replacement Design-Build project in the Town of Narrows, VA. The $15.6M project replaced the existing, structurally deficient bridge that crosses the New River, Route 460, and Old Virginia Avenue with a new, 1140' two-lane bridge with sidewalks and included reconstruction of the roadway approaches at both ends of the proposed structure. The design scope of services included survey, subsurface utility engineering, road design, bridge design, drainage and stormwater management design, hydrologic and hydraulic analysis, geotechnical engineering, environmental permit acquisition, utility coordination and relocations, right-of-way acquisition, signing and marking, and public involvement. Firm: Johnson Mirmiran &amp; Thompson, Inc. Project Dates: January 2011 to August 2014</td>
<td>VDOT Design-Build - Design Manager - Full Service Design - Bridge Replacement - Phased Construction - Kask Environment - Bridge over Road - Bridge over Waterway - Heavy Public Relations - Worked with Wagman Staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) I-77 SB over New River Bridge, Wythe County, VA Project Manager. Responsible for developing complete construction plans for roadway improvements to the I-77 Southbound Lanes approaching the bridge over the New River in Wythe County. The work consisted of extending the 3,755 foot radius curve, eliminating the tangent section, and increasing the super-elevation to meet the 2008 VDOT Road and Bridge Standards. The limits of begin at the north end of the bridge over the New River and extend approximately 1400 feet north to the I-77 Southbound Lanes. Construction included extending the existing concrete barrier on the bridge on the right edge of pavement approximately 800 feet north. With the extended barrier, additional drop inlets were required and a new concrete ditch was needed behind the barrier. All work was completed within existing right-of-way. In 2013, the project was awarded a VTCAT Transportation Engineering Award. Firm: Johnson Mirmiran &amp; Thompson, Inc. Project Dates: February 2012 to January 2013</td>
<td>VDOT Design-Build - Bristol District - Design Manager - Interstate Improvements - High ADT - Bridge Approach Roadway - Horiz and Vert Improvements - Phased Construction - VTCA Award Winner</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Old Airport Road over Beaver Creek Bridge Widening, City of Bristol, VA Lead Structural Engineer. Responsible for the design and plan preparation of the bridge widening and retaining wall associated with this project. JMT performed the design for improvements to the exit ramps and connecting roadway on I-81 at Exit 7 in the City of Bristol. The connecting roadway improvements included widening the existing bridge on Old Airport Road over Beaver Creek. The superstructure for the three span continuous bridge consists of steel rolled beams with a composite, cast-in-place concrete deck. The superstructure is supported on cast-in-place concrete cantilever abutments founded on firm material at one abutment and on driven steel H-piles at the other abutment and on a cast-in-place concrete solid wall pier founded on firm material. The project also required design for a retaining wall under the existing bridge on I-81 over Old Airport Road to allow a new sidewalk to be constructed in conjunction with the roadway improvements. In addition, the project required developing extensive maintenance of traffic plans to keep lanes open year-round especially during “race weekends”. Firm: Johnson Mirmiran &amp; Thompson, Inc. Project Dates: January 2012 to July 2015</td>
<td>VDOT Bridge Widening - Bristol District - Bridge Design Manager - Bridge over Waterway - Shop Drawing Review - Consultation During Const</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Route 288 Public Private Transportation Act, Design-Build Project, VDOT Richmond District Lead Structural Engineer and Field Engineer. Responsible for the design and plan preparation of 4 bridges on VDOT’s Route 288 PPTA, D-B Project in VDOT’s Richmond District. Worked closely with the D-B Bridge Contractor to develop economical bridge designs that met the contract requirements. Incorporated similar value engineering solutions into the design for each bridge to provide economies of scale during manufacturing and construction, including use of prestressed concrete bulb tee beams, laminated elastomeric bearing pads, and MSE retaining walls. Used similar geometry for cast-in-place concrete elements to further enhance efficiencies in construction, including deck slab overhang widths, pier cap, column, and footing sizes, abutment cap sizes, and drilled shaft sizes and details. Served as field engineer during construction of 25 bridges on the project. Reviewed material and shop drawings for conformance with the plans and specifications, responded to Contractor submitted request for information, resolved field issues during construction, and assisted bridge inspection staff. Conducted close coordination and interaction with other Design-Build Team members including roadway, geotechnical, traffic, hydraulic, and utility engineers; construction managers, superintendents, and foremen; and quality assurance/quality control staff. Firm: Earth Tech Project Dates: June 2000 to June 2003</td>
<td>VDOT Design-Build - Bridge Design Manager - Bridge Construction Inspector - Interstate Bridge Interchange - Worked with Wagman Staff</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# ATTACHMENT 3.3.1

## KEY PERSONNEL RESUME FORM

### Brief Resume of Key Personnel anticipated for the Project.

<table>
<thead>
<tr>
<th>a. Name &amp; Title:</th>
<th><strong>Duane E. Carico</strong>  Project Superintendent</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. Project Assignment:</td>
<td><strong>Construction Manager</strong> (CM)</td>
</tr>
<tr>
<td>c. Name of Firm with which you are now associated:</td>
<td><strong>Wagman Heavy Civil, Inc.</strong></td>
</tr>
<tr>
<td>d. Years experience:</td>
<td>With this Firm &lt;1 Years With Other Firms 30 Years</td>
</tr>
<tr>
<td></td>
<td>Please list chronologically (most recent experience 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 experience, please list the experience for those years you have worked. Project specific experience shall be included in Section (g) below):</td>
</tr>
</tbody>
</table>

Mr. Carico has more than 30 years of Heavy Highway and Bridge Construction experience, and has served in many positions during the course of his career, including supervision of staff for both state and private industry. As superintendent, he was responsible for oversight of the crew’s daily activities, assuring compliance of safety rules and regulations, layout were accurate, plans and specifications were met, and ensuring a quality product was delivered to the owner on time. Mr. Carico also worked as an estimator to ensure all items and conditions were included, and project time limits were considered that reflected a competitive bid. As a manager, he was responsible for negotiating changes, coordinating subcontractors, and equipment and labor, and ensured that materials were delivered efficiently so that the project schedule was not negatively impacted.

### Wagman Heavy Civil, Inc.

<table>
<thead>
<tr>
<th>Start Date: 2015</th>
<th>End Date: Present</th>
<th>Position: Bridge Superintendent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Responsibilities:</strong></td>
<td>Mr. Carico currently holds the position as Bridge Superintendent for the Southgate Interchange Project in Blacksburg Virginia. His responsibilities include the daily planning and supervisions of the operations to ensure the project meets safety, environmental, and all quality expectations in a timely manner. Also, he coordinates with the client and other stakeholders.</td>
<td></td>
</tr>
</tbody>
</table>

### ATCS, plc

<table>
<thead>
<tr>
<th>Start Date: 2011</th>
<th>End Date: 2015</th>
<th>Position: Senior Inspector</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>As Senior Inspector for ATCS, Mr. Carico was assigned to several VDOT projects to ensure strict adherence with the projects plans and specifications, perform testing for quality assurance, maintain the project records in site manager and keep open lines of communication between all stakeholders. As senior inspector, he ensured compliance for environmental standards and project special provisions. During his tenure at ATCS, Mr. Carico received extensive training and was able to secure multiple certifications.</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### D.A. Brown, Inc.

<table>
<thead>
<tr>
<th>Start Date: 2009</th>
<th>End Date: 2010</th>
<th>Position: General Bridge Superintendent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Among his responsibilities as General Bridge Superintendent, Mr. Carico build project schedules, plan and supervise the operations, ensure safety and quality. Also, he was responsible for the MOT operations and coordination with the TOC’s.</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Fort Chiswell Construction, Inc.

<table>
<thead>
<tr>
<th>Start Date: 2006</th>
<th>End Date: 2009</th>
<th>Position: Structures Superintendent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>As structures superintendent, Mr. Carico was responsible for the daily operations. Scheduling and ordering equipment and materials. Also, he was responsible for the quality and safety in his projects.</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Branch Highways, Inc.

<table>
<thead>
<tr>
<th>Start Date: 2000</th>
<th>End Date: 2006</th>
<th>Position: General Bridge Superintendent/Estimator</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>As General Bridge Superintendent for Branch Highways, Mr. Carico assisted in project estimating, resources coordination among the projects. Supervise the overall construction activities in the field to ensure a project delivery that meets or exceeds the expectations on safety, time, budget and especially, a quality product in challenging designs. He was responsible for the coordination with the client as well as to negotiate changes and; to identify risks and opportunities to ensure the timely delivery of the project.</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Summary of Relevant Experience

- 30 Years of Experience
- Familiar with Environmental Aspects
- Roadway Widening Experience
- Traveling Public Awareness
- QA/QC and Project Management
- Design-Build Experience

<table>
<thead>
<tr>
<th>e. Education: Name &amp; Location of Institution(s)/Degree(s)/Year/Specialization:</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School 1979 Fort Chiswell</td>
</tr>
<tr>
<td>Wytheville Community College/NA/1980-1981/Civil Engineering</td>
</tr>
<tr>
<td>Construction Estimating Institute of America/Continuing Education/1988</td>
</tr>
<tr>
<td>Transportation Construction Management Institute (VA. Tech)/ Continuing Education/1989</td>
</tr>
</tbody>
</table>

| f. Active Registration: Year First Registered/ Discipline/VA Registration #: |
| 2015/Soils and Aggregate Field Compaction Certification |
2011/Asphalt Field Certification  
2014/Intermediate Work Zone Traffic Control Certification/Cert # 041114776  
2014/Guardrail - GRIT Certification/Cert # ISP-0317140-04  
ACI Technician I Certification  
2013/(DCR) Erosion and Sediment Control Inspection/Cert # 5360  
Hydraulic Cement Concrete Field Certification  
2011/Pavement Marking Certification  
2011/Slurry Surfacing Certification  
2011/Surface Treatment Certification  
2014/Nuclear Gauge Safety Training Certification/Cert # N/A  
Flagger Certification/Cert # N/A  
10 Hour OSHA Safety Training/Cert # N/A

g. Document the extent and depth of your experience and qualifications relevant to the Project.  
1. Note your specific responsibilities and authorities 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 at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.)  
* On-call contracts with multiple task orders (on multiple projects) may not be listed as a single project.

<table>
<thead>
<tr>
<th>No.</th>
<th>Project Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>VDOT, Southgate Interchange VA ($3M) – Bridge Superintendent</td>
<td>Responsible for daily operation, coordinating material, labor and equipment needs of two bridges and three box culverts. Responsible for ensuring safety, environmental, and quality work, tracking daily quantities and meeting schedule deadlines.</td>
</tr>
<tr>
<td></td>
<td>Firm: Wagman Heavy Civil, Inc. / Project Dates: July 2015 to Present</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>VDOT, Wilderness Road Superstructure Renovation, Wytheville, VA ($2M) – General Superintendent</td>
<td>This project consisted of removing the existing superstructure over I-77 and placing new deck, raling and approaches. Mr. Carico was responsible for MOT and notifying Salem TOC. He was in charge of traveling public safety. His other responsibilities included placing crew daily activity compliance of safety rules and regulations and adhering to contract, plans and specifications.</td>
</tr>
<tr>
<td></td>
<td>Firm: D.A. Brown, Inc. / Project Dates: May 2010 to December 2010</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>VDOT, Route 644 Grade and Bridge, Bedford, VA ($2M) – General Superintendent</td>
<td>This project consisted of a 0.5-mile 10,000 CY grade project that included a 2-span, 103 LF steel beam bridge. Mr. Carico was responsible for building the project schedule and implementing and maintaining sediment and erosion control compliance requirements of grade and bridge operations. He was also responsible for compliance of contract, plans, and specifications and also for safety rules and regulations and daily activities of site crews.</td>
</tr>
<tr>
<td></td>
<td>Firm: D.A. Brown, Inc. / Project Dates: March 2010 to May 2010</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>VDOT, I-64 East &amp; West Bound Bridges over Jackson River, Alleghany Co. VA ($1M) – General Bridge Superintendent</td>
<td>This project included twin structures of approximately 660 feet in length and demolition of the existing structures and replacement of all substructure and superstructure with spread footings, bearing H pile, and Bulb T girders. Mr. Carico was responsible for assisting with the project estimate for submittal. His tasks also included scheduling of equipment, labor, and materials throughout the project; producing shoring and cofferdam drawings; contract, plan, specifications, and safety compliance of the project’s daily activities; and coordinating and scheduling subcontractors.</td>
</tr>
<tr>
<td></td>
<td>Firm: Branch Highways, Inc. / Project Dates: January 2005 to January 2006</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>VDOT, I-81 Bridges over Looney Mill Creek, Botetourt Co. VA ($2M) – General Bridge Superintendent</td>
<td>This safety improvement project included the widening and extensions of the existing North and South bound on- and off-ramps. Mr. Carico was responsible for assisting with the project estimate for submittal; scheduling of equipment, labor, and materials throughout the project; producing shoring; contract, plan, specifications, and safety compliance of the project’s daily activities; and coordinating and scheduling subcontractors.</td>
</tr>
<tr>
<td></td>
<td>Firm: Branch Highways, Inc. / Project Dates: April 2004 to December 2004</td>
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</tbody>
</table>

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.

Mr. Carico’s current assignment is Construction Manager on the Southgate Interchange Project in Blacksburg VA. He will complete this assignment by September 2016, which will allow him to be on the I-81 Project 100% of the time.
3.4.1
Work History Forms
3.4.1(a)
Lead Contractor
Work History Forms
### LEAD CONTRACTOR - WORK HISTORY FORM

**LIMIT 1 PAGE PER PROJECT**

<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
<th>b. Name of the prime design consulting firm responsible for the overall project design</th>
<th>c. Contact information of the Client or Owner and their Project Manager who can verify Firm’s responsibilities.</th>
<th>d. Construction Contract Completion Date (Original)</th>
<th>e. Construction Contract Completion Date (Actual or Estimated)</th>
<th>f. Contract Value (in thousands)</th>
<th>g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement (in thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route 61 (MacArthur Avenue) Bridge Replacement over New River, Route 460 and Old Virginia Avenue (Design-Build) Town of Narrows, VA</td>
<td>Johnson, Mirmiran &amp; Thompson, Inc.</td>
<td>Virginia Department of Transportation Phone: 540-381-7195 Project Manager: M. Duane Mann, PE Phone: 540-381-7195 Email: <a href="mailto:M.Mann@VDOT.Virginia.gov">M.Mann@VDOT.Virginia.gov</a></td>
<td>08/2013</td>
<td>09/2014</td>
<td>$15,582</td>
<td>$16,660</td>
</tr>
</tbody>
</table>

**Scope/Project Description** - The Wagman/Design-Build Team designed and constructed this Design-Build project that involved replacing a 1,200-foot long bridge and approaches over the New River and Route 460 with a wider, jointless bridge for VDOT. The bridge used various deep foundation techniques including driven H-Pile and Drilled Shafts (caissons). Construction access while maintaining traffic was a unique challenge for this project. We designed and constructed a causeway and other access roads allowing the project to meet the project schedule and keep the traveling public safe during construction. The superstructure consisted of 100 feet to 134 feet pre-stressed, pre-cast Bulb T concrete girders. The Design-Build project’s scope included preliminary and final design for bridge, road, storm drainage and utilities; acquisition of all environmental permits and approvals for construction; construction season temporary ROW; and multi-phase MOT and overall project management. The Wagman Design-Build Team worked with VDOT post award to provide significant value added features into the project. Numerous aesthetic/context-sensitive solutions including aesthetic form liners at abutments and retaining walls, bridge scenic overlooks on the river, a park-and-ride facility, a bio-retention facility, sidewalks, bike lanes and street lighting.

The project could easily have been described as a “utility project with bridge included.” The Design-Build Team worked with several public utility providers, local service authorities and governmental agencies to plan, coordinate, and execute utility installations on the new bridge structures. A waterline, sewer line, telephone conduits, power conduits, lighting conduits, gas line and fiber optic lines were all successfully transferred from the old bridge to the new bridge with no mishaps or loss of service.

The project split the Town of Narrows, VA requiring close coordination with the traveling public and third party stakeholders in addition to the previously mentioned utilities. The Design-Build Team coordinated with the Giles County School System, Town of Narrows, Giles County Emergency Services (Fire & Rescue), and the Town of Narrows Christmas Parade and Christmas Lights Committee to provide appropriate access and levels of service throughout the project.

Maintenance of Traffic and Complex Traffic Shifts were required on Route 61 and Route 460 for construction phasing and sequencing. The Design-Build Team coordinated with VDOT Salem District, VDOT Traffic Operations Control and third party stakeholders to plan, notify and execute all Maintenance of Traffic Operations even when encountering significant winter storm and flood events.

This project provided the Design-Build Team with several significant karst geotechnical challenges. We encountered and successfully designed and constructed the project while encountering paleo-sinkholes, significant variations in rock quality, mud seams and voids. The Design-Build Team self-performed pile driving, temporary shoring, temporary wire walls, MSE walls, 36” dia. drilled shafts, 6’-0” dia. drilled shafts, drilled H-Pile, and permanent pile-panel retaining wall.

The existing structure was demolished after the new structure was completed. Roadway approaches were re-aligned and reconstructed.

**SIMILAR SCOPE ACTIVITIES**
- Design-Build
- Construction QC
- Quality Assurance
- Replacing a structure over Waters of the US
- Maintaining Traffic on a major arterial route
- Deep foundations
- Bridge construction over an existing roadway and river
- Public outreach coordination effort to keep all stakeholders informed during design and construction maintaining traffic.
- Utility Relocations
- Maintenance of Traffic and Complex Traffic Shifts
- Karst geologic features overcome by in-house versatility in geotechnical construction.

**LESSONS LEARNED ON THE RT 61 BRIDGE REPLACEMENT OVER NEW RIVER AND RT 460**
- Timely constructability reviews during the design process minimized risks and, reduced the need of design changes and re-work during construction
- Environmental compliance and stormwater management mitigated impacts, especially while working over the New River
- Karst geology requires more intensive geotechnical investigation during design and flexibility during construction phases.
- Early and often communication with 3rd party stakeholders provides significant advantages to both project coordination and maintenance of traffic operations.

Both Key Construction Co., Inc. and D.W. Lyle Corporation were acquired by Wagman Heavy Civil, Inc. (formerly G.A. & F.C. Wagman, Inc.) in 2013. These strategic acquisitions supplement our construction capabilities in Virginia and other southern states. Wagman Heavy Civil retained the key personnel from these acquisitions whose knowledge, resources, and experience strengthened Wagman Heavy Civil’s overall capabilities. Wagman Heavy Civil is justified in utilizing a Key Construction Co. D.W. Lyle Corporation past project to satisfy the relevant project experience on this project due to the retention of the acquired firms’ personnel and resources. Our past experience and combined resources will allow us to successfully deliver the I-81 Structure Replacement over Rt 808 Halls Bottom Road and Sinking Creek project. This project became a Wagman contract after acquisition of Key Construction and D.W. Lyle Corporation.
The project faced a variety of challenges that threatened the flow of traffic through the interchange area. Additionally, the project team faced the complication of a rapidly deteriorating existing road surface that required extensive unforeseen repairs that threatened the overall ability to succeed on the project. The initial project stages were performed in tight work zones with limited access. However, these restricted areas facilitated the flow of traffic through the interchange area. In order to maximize work area as well as the available travel lanes, numerous small support of excavation systems were designed and installed by Wagman. This project had exemplary work performance for quality, production and safety. One of the largest successes of the project was finishing seven months ahead of schedule. The hard work and dedication of the construction team along with the strong partnership with the SHA field staff created a work atmosphere that was conducive to safe production. Open lines of communication between the State and the contractor allowed on-site decisions to be made without interruption to the forward momentum of the project. One such example was the approval to resurface the road ahead of the original contract time transitions between phases.

The project included significant excavation, drainage, base, and asphalt paving to construct new roadway approaches to the bridges. Four miles of patching, grading, and asphalt overlay along Maryland Route 4 improved the heavily deteriorated driving surface. The project also included new street lighting, upgraded signalized interchanges, guardrail installation, stormwater management facility construction, signage, and landscaping. This project faced inherent and external challenges. The project required careful planning, scheduling and phasing, including overnight traffic switches. There were restricted work areas in the early phases of the project. Wagman also needed to maintain the heavily deteriorated existing roadway surface through the harsh 2013/2014 winter months during construction. The project was built in five phases which reduced impacts to the traveling public through the use of five overnight traffic switches. The night-time transitions between phases minimized disruption to a major DC East/West corridor. The coordination between the SHA public outreach team, the project inspection staff and the Wagman project team was essential to ensure the pattern changes were carried out quickly and safely.

Phase 1 consisted of shoulder improvements needed to upgrade existing shoulders to accommodate the project’s future traffic phasing. The existing asphalt and subbase was removed and graded aggregate base and an approved asphalt package was placed. Traffic was shifted onto this newly modified shoulder in order to construct Phase 2. Phase 2 began with the demolition of the median portion of the existing bridge. The inside portions of eastbound and westbound Route 4 over MD 223 Bridge were then reconstructed. A temporary roadway was placed to allow traffic to be moved from the outside to the median lanes. Another traffic switch moved the project into Phase 3. Phase 3 entailed demolition and construction of the outside portions of eastbound and westbound Route 4. Phases 4 and 5 consisted of restoration of the permanent open median, stormwater management construction, and improvement of four miles of the Route 4 driving surface. Due to the phasing of the project, the result was limited work areas. In order to maximize the restricted work zones, a support of excavation system was engineered along the phase line. The shoring system enabled the construction team to build the substructure including piling, footers, abutment stems, wingwalls and pier columns and caps. For the duration of the project, Wagman was responsible for maintaining five miles of MD 4 roadway. This created numerous challenges because the road was deteriorated prior to the start of the project and the harsh winter caused further weakening of the riding surface. Constant pothole repair crews were dispatched to maintain the road surface through the winter months. As soon as the temperatures allowed, the road was milled, patched and resurfaced.

The project faced a variety of challenges that threatened the flow of traffic through the interchange area. Additionally, the project team faced the complication of a rapidly deteriorating existing road surface that required extensive unforeseen repairs that threatened the overall ability to succeed on the project. The initial project stages were performed in tight work zones with limited access. However, these restricted areas facilitated the flow of traffic through the interchange area. In order to maximize work area as well as the available travel lanes, numerous small support of excavation systems were designed and installed by Wagman. This project had exemplary work performance for quality, production and safety. One of the largest successes of the project was finishing seven months ahead of schedule. This accomplishment relieved this heavily traveled corridor of impedes to the traveling public.

The project included significant excavation, drainage, base, and asphalt paving to construct new roadway approaches to the bridges. Four miles of patching, grading, and asphalt overlay along Maryland Route 4 improved the heavily deteriorated driving surface. The project also included new street lighting, upgraded signalized interchanges, guardrail installation, stormwater management facility construction, signage, and landscaping. This project faced inherent and external challenges. The project required careful planning, scheduling and phasing, including overnight traffic switches. There were restricted work areas in the early phases of the project. Wagman also needed to maintain the heavily deteriorated existing roadway surface through the harsh 2013/2014 winter months during construction. The project was built in five phases which reduced impacts to the traveling public through the use of five overnight traffic switches. The night-time transitions between phases minimized disruption to a major DC East/West corridor. The coordination between the SHA public outreach team, the project inspection staff and the Wagman project team was essential to ensure the pattern changes were carried out quickly and safely.

Phase 1 consisted of shoulder improvements needed to upgrade existing shoulders to accommodate the project’s future traffic phasing. The existing asphalt and subbase was removed and graded aggregate base and an approved asphalt package was placed. Traffic was shifted onto this newly modified shoulder in order to construct Phase 2. Phase 2 began with the demolition of the median portion of the existing bridge. The inside portions of eastbound and westbound Route 4 over MD 223 Bridge were then reconstructed. A temporary roadway was placed to allow traffic to be moved from the outside to the median lanes. Another traffic switch moved the project into Phase 3. Phase 3 entailed demolition and construction of the outside portions of eastbound and westbound Route 4. Phases 4 and 5 consisted of restoration of the permanent open median, stormwater management construction, and improvement of four miles of the Route 4 driving surface. Due to the phasing of the project, the result was limited work areas. In order to maximize the restricted work zones, a support of excavation system was engineered along the phase line. The shoring system enabled the construction team to build the substructure including piling, footers, abutment stems, wingwalls and pier columns and caps. For the duration of the project, Wagman was responsible for maintaining five miles of MD 4 roadway. This created numerous challenges because the road was deteriorated prior to the start of the project and the harsh winter caused further weakening of the riding surface. Constant pothole repair crews were dispatched to maintain the road surface through the winter months. As soon as the temperatures allowed, the road was milled, patched and resurfaced.
ATTACHMENT 3.4.1(a)

LEAD CONTRACTOR - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
<th>b. Name of the prime design consulting firm responsible for the overall project design.</th>
<th>c. Contact information of the Client or Owner and their Project Manager who can verify Firm’s responsibilities.</th>
<th>d. Construction Completion Date (Original)</th>
<th>e. Construction Completion Date (Actual or Estimated)</th>
<th>f. Contract Value</th>
<th>g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement (in thousands)</th>
</tr>
</thead>
</table>
| Route 54 over I-95        | Whitman, Requardt & Associates                                                        | Virginia Department of Transportation  
Phone: (804) 921-8583  
Project Manager: Larry W. Brown  
Phone: (804) 921-8583  
Email: Larryw.brown@vdot.virginia.gov | 12/2015                                                                                                                   | 11/2015                                                                                 | $8,412                                      | $8,300                                                                                                         |

b. 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.

**Scope/Project Description** - This project was the removal, replacement and widening of the existing Route 54 bridges over I-95 in Ashland, Virginia. The new bridge is a dual bridge carrying Route 54 east and west bound over Interstate 95. The dual bridge was combined into one structure that is 220-ft long and 97-ft wide. Originally the bridges were to be replaced using three traffic phases. Through coordination and cooperation with WRA, McCormick Taylor and VDOT, Wagman redesigned the traffic phasing to two phases, reducing impacts to the traveling public, accelerating the schedule and reducing cost. Wagman was responsible for maintenance and protection of traffic on a busy corridor of I-95 north of Richmond, and also reconstructed and widened the bridge approach roadway as well as making significant drainage improvements and pedestrian/bicycle access on Route 54.

Wagman designed and constructed the support of excavation to reconstruct the piers along I-95. Wagman’s Geotechnical Group drove the piles for the foundation, which was complex construction due to the close proximity of the existing bridge and existing foundations. Wagman coordinated with local stakeholders and cooperated with the local businesses to minimize impacts. Demolition of the existing structures over I-95 with brief traffic stoppages. The demolition and the erection of new girders involved coordination with VDOT’s Public Outreach group to minimize impacts to the traveling public and to inform the commuters and truckers travelling along I-95. Erosion and sedimentation and stormwater management was vital to avoid impacts to existing Waters of the US.

This project required significant 3rd party stakeholder coordination. The Town of Ashland and Hanover County depend heavily on this as this interchange not only for local mobility but for tax revenue generation with I-95 travelers. Reduced or restricted access would have significant negative consequences to local and “out of town” travel. Safe, seamless Maintenance of Traffic was critical to the project success. The project VE to reduce construction phases significantly improved traffic flow and immediately eliminated a traffic conflict point that had been responsible for multiple serious accidents before the project started.

Wagman’s construction team also closely coordinates with several significant adjacent projects, often operating and scheduling traffic control operations with multiple projects. This coordination has helped create a safer travel corridor for the traveling public.

**SIMILAR SCOPE ACTIVITIES**
- Reconstruction of dual bridges in multiple construction phases
- Working on an Interstate (I-95)
- Reconstruction of Bridge approaches
- Demolition of existing structure in phases while maintaining safety of the existing structure
- Coordination with VDOT Public Outreach program kept the traveling public informed of all traffic switches and impacts
- Coordination with adjacent projects
- Significant work within a very narrow interstate median

**LESSONS LEARNED ON THE ROUTE 54 OVER I-95 PROJECT**
- Collaboration with VDOT and the Designer allowed the team to re-design the traffic and construction phasing improving the schedule, reducing cost, and minimizing impacts to the traveling public.
- Demolition of an existing structure in phases and maintaining safety of the existing structure requires sound construction engineering and constructability reviews by field personnel to ensure safety of the workers and traveling public.
- Constructing deep foundations adjacent to an existing structure (and under the structure) requires expertise in geotechnical engineering. With Wagman’s in-house geotechnical engineers, the team developed a foundation construction plan and support of excavation that allowed construction with minimal impact to the existing structure.
3.4.1(b)  
Lead Designer  
Work History Forms
LEAD DESIGNER - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location

Route 61 (MacArthur Avenue) Bridge Replacement over New River, Route 460 and Old Virginia Avenue (Design-Build)

b. Name of the prime/ general Contractor responsible for overall construction of the project.

Wagman Heavy Civil, Inc.

Wagman Heavy Civil, Inc.

Richmond and Sparks, VA

Pennsylvania, PA

c. Contact information of the Client and their Project Manager who can verify Firm’s responsibilities.

Virginia Department of Transportation

Christiansburg Residency

Phone: 540.381.7195

Project Manager: Duane M. Mann, PE, PMP

Phone: 540-765-7226

Email: m.mann@vdot.virginia.gov

08/2013

09/2014

$15,582

$15,582

$1,302

JMT Design Fee

Similarscope Activities

- Designing Bridge Foundations in a karst environment
- Performing additional borings, design with flexibility in mind
- Evaluating lower resistance factors versus performing load tests
- Working with Local Stakeholders - meet with Town officials to determine their needs
- Excellent Working Relationships - JMT and Wagman staff developed an excellent working relationship based on trust and commitment to Team success that they have carried over on to other D-B projects.

LESSONS LEARNED ON THE ROUTE 61 BRIDGE REPLACEMENT OVER NEW RIVER PROJECT

- Excellent Working Relationships - JMT and Wagman staff developed an excellent working relationship based on trust and commitment to Team success that they have carried over on to other D-B projects.

d. Construction Completion Date (Original)

08/2013

09/2014

$15,582

$15,582

e. Construction Completion Date (Actual or Estimated)

$1,302

JMT Design Fee

f. Contract Value (in thousands)

$1,302

JMT Design Fee

g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement (in thousands)

JMT was the Lead/Prime Designer.

As a result of the project’s success, JMT incorporated a number of aesthetic, context sensitive solutions, into the project including concrete surfaces with asphalt stone finish, overlooks on the bridge over the river, a park and ride facility with passenger shelter, a stormwater bioretention facility, sidewalks and bike lanes on the bridge, and street lighting along the entire length of the project. The project also required phased construction in order to maintain two lanes of traffic and pedestrian access across the bridge during construction.

As shown in the photographs, the project involved designing a nine (9) span, 1,141 foot long replacement bridge over a waterway and providing approach roadway geometric design at each end of the bridge. The bridge superstructure consists of prestressed concrete bulb tee beams, with a maximum span of 133 feet, and a cast-in-place concrete deck.

The piers consist of two columns supporting a cap with each column founded on a large diameter drilled shaft. Abutments consist of conventional abutments founded on drilled shafts at one location and driven steel piles at the other. Joints were eliminated at all pier locations and VDOT’s Virginia Alternate Abutment details using steel tooth joints were used at both abutments.

One of the major challenges for the Team was designing the bridge foundations in an active karst environment. In order to reduce the potential for unexpected condition during construction and to gain confidence in the final design, an extensive geotechnical field investigation was performed in excess of the requirements in VDOT Materials Division Manual of Instructions, Chapter 3. For example, a boring was obtained below the center of each drilled shafts for the pier where normal requirements may have only required a single boring at every other drilled shaft. During final design, the bridge and geotechnical engineers determined that additional field information was required to be confident in the design so the drill rigs were mobilized to obtain the necessary data. Conventional VDOT requirements called for physically load testing one or two drilled shafts on the project in addition to standard cross borehole sonic logging. The Team was not comfortable load testing such a small number given the high probability of geologic variation along the length of the bridge. Instead, the Team proposed using a lower resistance factor that eliminated the need for load testing. Resulting drilled shafts lengths were longer than if a higher resistance factor were selected in conjunction with a load test, but both designers and Contractor were more comfortable with the more conservative approach. Foundations were designed to accommodate changed conditions in the field in order to minimize the potential for delays. In addition, a geotechnical engineer was on site during drilled shaft construction to observe actual conditions and to be able to make decisions immediately if conditions other than those assumed in the design were encountered.

Both Key Construction Co., Inc. and D.W. Lyle Corporation were acquired by Wagman Heavy Civil, Inc. (formerly G.A. & F.C. Wagman, Inc.) in 2013. These strategic acquisitions supplement our construction capabilities in Virginia and other southern states. Wagman Heavy Civil retained the key personnel from these acquisitions whose knowledge, resources, and experience strengthen Wagman Heavy Civil’s overall capabilities. Wagman Heavy Civil is justified in utilizing a Key Construction Co. D.W. Lyle Corporation past project to satisfy the relevant project experience on this project due to the retention of the acquired firms’ personnel and resources. Our past experience and combined resources will allow us to successfully deliver the I-81 Structure Replacement over Route 808 Hills Bottom Road and Sinking Creek project.
### Lead Designer - Work History Form

#### (Limit 1 Page per Project)

<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
<th>b. Name of the prime/general contractor responsible for overall construction of the project.</th>
<th>c. Contact information of the Client and their Project Manager who can verify Firm’s responsibilities.</th>
<th>d. Construction Contract Completion Date (Original)</th>
<th>e. Construction Contract Completion Date (Actual or Estimated)</th>
<th>f. Contract Value (in thousands)</th>
<th>g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement (in thousands)</th>
</tr>
</thead>
</table>
| I-77 Southbound Lanes Over New River Bridge Approach Roadway Improvements | W-L Construction and Paving, Inc. | Virginia Dept. of Transportation Bristol District  
Phone: 276-669-6151  
Chase Buchanan  
Phone: 276-645-4878 Ext 398  
Email: chase.buchanan@vdot.virginia.gov | 12/2012 | 01/2013 | $2,686 (Original Estimate) | $2,114 (Actual) | $151 JMT Design Fee |

### Similar Scope Activities
- Fast Track Design-Bid-Build  
- Bristol District  
- Interstate Improvements  
- High ADT  
- Bridge Approach Roadway  
- Horiz and Vert Improvements  
- Work within Existing ROW  
- Phased Construction  
- VTCIA Award Winner

### Lessons Learned on the I-77 Southbound Lanes over New River Bridge Approach Roadway Improvements Project

- Team Collaboration to Meet Tight Schedule - Daily communication between the consultant Project Manager, the consultant Project Engineer, and the VDOT Project Manager; informal plan submittals; and bi-weekly estimate updates were critical to stay on schedule and within budget.
- Exceed Design Criteria Minimums When Feasible and Economical – Provide a design that exceeds the design minimums for the project. On this project, JMT developed a design to accommodate a 75 mph design speed - a full 10 mph over the posted speed limits – in order to provide a safer facility. The resulting design did not require additional ROW and did not increase project footprint or cost significantly.
- Only Perform Required VDOT Scheduled Tasks – Since the project did not require ROW, did not impact utilities, and satisfied an environmental Categorical Exclusion – design went straight to PAC. JMT provided the District progress plans along the way so the PAC and Advertisement could be happen as quickly as possible.

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**JMT was the Lead/Prime Designer.**  
Design work was performed from our Richmond office.

Scope/Project Description

The Virginia Department of Transportation (VDOT) completed an important improvement project for the I-77 Southbound Lanes approaching the bridge over the New River in Wythe County. The purpose of the project was to reconstruct a problematic curve, where one fatality and nineteen crashes were documented over a three-year period, and required immediate action to correct the situation. VDOT’s Bristol District was tasked in November 2011 to develop plans and complete construction by the end of 2012.

As VDOT’s design consultant, Johnson, Mirrman & Thompson, Inc. (JMT) was responsible for developing complete construction plans for roadway improvements to the I-77 Southbound Lanes approaching the bridge over the New River in Wythe County. The work consisted of eliminating two small radius curves and constructing a longer 3,462 foot radius curve, eliminating the tangent section between the two smaller radius curves, and increasing the superelevation to meet the 2008 VDOT Road and Bridge Standards. The limits of begin at the north end of the bridge over the New River and extend approximately 1400 feet north along the I-77 Southbound Lanes. Construction included extending the existing concrete barrier on the bridge on the right edge of pavement approximately 620 feet north. With the extended barrier, additional drop inlets were required and a new concrete ditch was needed behind the barrier. All work was completed within existing right-of-way. Project team collaboration between VDOT, JMT, and the Contractor was a necessity from the initial scoping of the project to final completion of construction and resulted in a project completed under budget.

**Need for Safety Improvement**

This location on I-77, where one fatality and nineteen crashes were documented over a three-year period, required immediate action to reconstruct a problematic curve. VDOT’s Bristol District was asked in November 2011 to develop plans and complete construction by the end of 2012. The existing roadway was a two-lane section on I-77 southbound in Wythe County located on a steep 4.5% downgrade; a horizontal alignment consisting of a 3,755 foot horizontal curve with 5.2% superelevation, a short 362 foot tangent section, and a second 2,292 foot horizontal curve with 4.3% prior to the bridge.

Based on the review of the accident reports and numerous trips through the project site, two main factors contribute to the number of accidents at the site. The first factor is wet pavement during wet weather events. The second factor is the “rocking” effect of vehicles, and in particular trucks, caused as they go from curve to tangent to curve. This “rocking” effect causes many drivers to over correct as they move through the site resulting in vehicle sideswipes or impacts to inside barrier and outside guardrail.

JMT roadway designers evaluated alignments with different radius’s some using transition spirals and some not using spirals. A critical design constraint was to end the curve transition prior to existing bridge approach slab and not encroach on the northbound lane. After reviewing the pros and cons with Department staff, the design team selected an alignment using a 1,140 foot long radius with transition spirals that provides a 75 mph design speed. The project maintained the existing posted design speed of 65 mph by providing a higher design speed, JMT was able to increase safety through the site.

**Fast-Tracked Schedule**

JMT had only nine weeks from the submittal of their scope of services to the Pre-Advertisement Conference. During these nine weeks, informal project submittals were submitted to VDOT for their review as the consultant worked on another phase of the project. VDOT reviewed the submittals and provided comments within one to two days.

**Project team collaboration was a necessity from the initial scoping of the project.** Daily communication between the consultant Project Manager, the consultant Project Engineer, and the VDOT Project Manager; informal plan submittals; and bi-weekly estimate updates were critical to stay on schedule and within budget.

The key factors that allowed this project to have an aggressive schedule were no additional right of way, minimal environmental impact, a public involvement waiver, and sufficient funds in place. A very detailed scoping of the deliverables was provided by VDOT, thus eliminating the unknowns of the project and increasing schedule efficiency. Informal project submittals were submitted to VDOT for their review weekly, as the consultant would work on another phase of the project.

Open communication and early project submittal between FHWA, VDOT’s project management staff, Program Investment Managers (PIMs), surveyors, materials engineers, traffic engineers, design consultants, and construction staff, allowed this aggressive project schedule to be set for a December completion.

**Completed On Time & On Budget**

Collaboration between VDOT, JMT – the roadway designer, and Contractor resulted in completing the project under budget. The Department’s final plan submission construction budget for the project was $2,686,348. The initial contract amount with the Contractor was $2,249,349 and final expenditures on the project amounted to $2,114,210 resulting in a project approximately 20% under budget. In addition, the project was substantially complete in December 2012 meeting the established project schedule with final completion after cleanup and demolition in January 2013.
**ATTACHMENT 3.4.1(b)**

**LEAD DESIGNER - WORK HISTORY FORM**

<table>
<thead>
<tr>
<th>(LIMIT 1 PAGE PER PROJECT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Project Name &amp; Location</td>
</tr>
<tr>
<td>-----------------------------</td>
</tr>
<tr>
<td>11th Street Bridges over Anacostia River and Interchanges (DB)</td>
</tr>
</tbody>
</table>

**SINGLE CONTRACT**

- Washington, DC

**Scope/Project Description** - Previously, no direct connection existed between the Southeast Freeway (I-695) and the northern segment of the Anacostia Freeway (DC 295/1-295). Because of this unfinished connection, regional traffic was forced to neighborhood streets, resulting in significantly increased traffic on local streets within the Anacostia and Capitol Hill neighborhoods. The 11th Street Project will complete all freeway connections for regional traffic between the I-695 and DC 295/1-295, and to-date is the largest construction project in DDOT history. JMT as the Lead Designer for this stipulated sum Design-Build Project in Washington, DC adjacent to the Washington Navy Yard and about 1.5 miles from the U.S. Capitol completed all design work on schedule. This project included three new major continuous steel multi-girder bridge crossings of the Anacostia River and two complex interchanges with the Southeast Anacostia Freeway (I-295). The bridges include a 5 span 866-ft. long bridge, a 5 span 926-ft. long bridge and a 10 span 1,650-ft. long bridge. Similar to I-64/2, several existing bridges were rehabilitated and two bridges were widened for use in the new interchange and widened lanes. Both new bridges were designed to accommodate the Navy Yard. The design incorporated two bridge crossings of existing CSXT tracks, three bridges that accommodated future CSXT track envelopes and the expansion of an existing CSXT tunnel beneath Virginia Avenue. The collaboration with CSXT resulted in a win-win situation such that both projects would function and accommodate each other. The work included: streets, sewers, SUE, grading, drainage, SWM, pavement design, shared use paths, cast in place and MSE retaining walls, noise/sound walls, lighting, traffic signals, landscaping, signing/striping, geotechnical eng./exploration/evaluation, utility relocations/coordinations, and environ., permitting and compliance monitoring.

The work took place in the Anacostia neighborhood, one of Washington’s oldest neighborhoods, and about 1.5 miles from the U.S. Capitol. The construction zone was surrounded by a number of office buildings, including the Washington Navy Yard facilities, as well as residences and commercial facilities. In such a large metro region, extensive traffic engineering plans/analysis and MOT was critical in keeping construction on schedule. The design had to accommodate the heavily traveled roadway network (106,000 AADT) near the highly urbanized area in the Anacostia water front area of Alexandria, VA that includes adjacent businesses, residences and industrial facilities including the Navy Yard. The TEM included MOT phasing, layout of temporary signing, marking, channelization devices, temporary pavement, temporary barrier and detour plans. Innovative design resulted in 70% of the project being constructed without major interruption to vehicular traffic thereby limiting impacts to the traveling public for an extended period of construction. Our communication plan included extensive public relations and communications that were part of the project approach. The communications strategies were managed by Skanska and DDOT with design information and graphics provided by the design team. The DB team used available print, electronic and internet media to inform residents, drivers and local businesses of project activities that might affect them. The DB team attended meetings of stakeholders, local businesses and residents, where we presented information about the project progress, upcoming events, and answered questions and addressed concerns.

JMT authored the NEPA Reevaluation of the FEIS and provided all environmental compliance and permitting efforts. JMT was responsible for all landscape design and Visual Quality elements including transition elements to the Navy Yard. JMT also provided coordination with and presentations to the National Capital Planning Commission and the U.S. Commission of Fine Arts for Visual Quality concurrence. JMT performed SUE, including over 150 test holes with JMT’s own SUE trucks and crews. These in-house efforts provided the Owner, designers and utility companies detailed information that allowed early communications and design strategies to be employed. Design accommodation was a large focus of our team’s approach to avoiding utilities. The numerous bridge foundations impacted extensive Verizon ductbanks and large diameter DC Water combined sewer systems, relocations could not be accommodated in the project schedule. Innovative deep foundations that bridged the utilities were designed to avoid relocations of these facilities and maintain schedule.

The geologic conditions present along the banks of the Anacostia river proved to be challenging. To address geologic conditions, subsurface exploration included more than 200 soil test borings with standard penetration and pressuremeter testing both on land and on the Anacostia River for geotechnical evaluation for both land and river bridges foundations, culvert crossings, slope stability and retaining wall design. The footprint of this project included several varying degrees of subsurface conditions, some of which proved difficult to mitigate. A large portion of the (Anacostia) side of the river was to be constructed on very soft alluvium and very poor fill materials that had been used in the south bank of the Anacostia River in the 1920s, creating what is now NPS land. The proposed construction, included several bridges that due to the soft/poor soil conditions were supported on steel H-piles or drilled shafts founded in the underlining high quality Potomac Group formation. The bridges included large approach embankments over soft ground in this area that would create significant settlement (in some cases a few feet) that could not be tolerated from both the perspectives of magnitude and time. Several innovative ground improvement methods -- including Light Weight Aggregate, GeoFoam Block, Geo-Steel and Geo-Concrete Columns - were successfully employed to mitigate settlement and global stability issues. In addition to the innovative methods, traditional Wick Drains and Surcharges were also used. In order to verify the performance of the ground improvement systems, an extensive geotechnical instrumentation program including piezometers, inclinometers and settlement plates was implemented.

**LESSONS LEARNED ON THE 11TH STREET BRIDGE PROJECT**

- Solve unique geotechnical challenges with innovative ground improvement methods - evaluate new methods to solve problems - Light Weight Aggregate, GeoFoam Block, Geo-Steel and Geo-Concrete Columns to mitigate settlement and global stability issues.
- Verify performance of ground improvement systems when necessary with extensive geotechnical instrumentation program including piezometers, inclinometers and settlement plates.
- Minimize impacts to traveling public using innovative design solutions and implementing a public communication plan using print, electronic and internet media and conduct meetings with stakeholders, businesses, and residents.

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*For a project with multiple phases or multiple contracts, only one phase or one contract will be considered. If additional phases or contracts are shown under the same Work History Form, only the first phase or contract listed will be evaluated.*