Statement of Qualifications

A DESIGN-BUILD PROJECT

Route 659
(Belmont Ridge Road)
Reconstruct to 4-Lanes

From: Route 642 (Hay Road)
To: Route 2150 (Gloucester Parkway)

Loudoun County, Virginia

State Project No.: 0659-053-262, R204, C504, B670, B671

Contract ID No.: C00076244DB76

Date: July 22, 2014
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>
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## ATTACHMENT 3.1.2

**Project:** 0659-053-262, R204, C504, B670, B671  
**STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS**

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## Statement of Qualifications Checklist and Contents

**Project: 0659-053-262, R204, C504, B670, B671**

### Statement of Qualifications Component

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ATTACHMENT 2.10

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

RFQ NO.     C00076244DB76
PROJECT NO.: 0659-053-262, R204, C504, B670, B671

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 05/29/2014 (Date)

2. Cover letter of Addendum No. 1 – 06/23/2014 (Date)

3. Cover letter of (Date)

Aaron T. Myers, Vice President/General Manager
AMERICAN INFRASTRUCTURE-VA, INC.

Signature
July 22, 2014
Date
3.2 Letter of Submittal
July 22, 2014

Kevin Reichert, P.E.
Alternative Project Delivery Office
Virginia Department of Transportation
1401 East Broad Street
Richmond, VA 23219

Letter of Submittal/Statement of Qualifications:

Route 659 (Belmont Ridge Road) - Reconstruct to 4-Lanes
From: Route 642 (Hay Road) To: Route 2150 (Gloucester Parkway)
State Project No.: 0659-053-262, R204, C504, B670, B671
Contract ID Number: C00076244DB76

Dear Mr. Kevin Reichert:

American Infrastructure and Whitman, Requardt & Associates, LLP (the AI/WR&A Team) bring a thorough understanding of working for the NOVA District, Design-Build (DB) delivery, and roadway widening projects. Our commitment to safety, as demonstrated by AI’s Home Safe Tonight initiative, will provide safe construction of Project, including the modifications and bridge crossing that will be installed at the W&OD trail, and ensures that we will plan safety into every phase and work operation.

The AI/WR&A Team presents the following information required by Section 3.2 of the RFQ:

3.2.1 The full legal name and address of American Infrastructure – VA, Inc. (AI-VA) is as follows:

American Infrastructure – VA, Inc., 12500 Fair Lakes Circle, Suite 150, Fairfax, VA 22033

3.2.2 Thomas Heil, PE (DBPM) will serve as the primary point of contact with VDOT for the Project.

Thomas Heil, PE, Design-Build Project Manager
12500 Fair Lakes Circle, Suite 150
Fairfax, VA 22033
571.485.0387 (Telephone)
610.222.4348 (Fax)
thomas.heil@americaninfrastructure.com

3.2.3 The principal officer of AI-VA with whom a design-build contract with VDOT would be written is:

Aaron Myers, Vice President/General Manager
301 Concourse Boulevard – Suite 300
Glen Allen, VA 23059
804.290.8500 (Telephone)
804.418.7935 (Fax)
aaron.myers@americaninfrastructure.com

3.2.4 American Infrastructure – VA, Inc. is a registered corporation in the Commonwealth of Virginia and will take full financial responsibility for the Project.

3.2.5 American Infrastructure – VA, Inc. will be the Lead Contractor and Whitman, Requardt & Associates, LLP will be the Lead Designer for the Project.

3.2.6 All affiliated and subsidiary companies are identified on the attachment in Appendix 3.2.6.

3.2.7 Executed Certification Regarding Debarment Forms are included in Appendix 3.2.7.

3.2.8 AI-VA is active, in good standing, and prequalified to bid on the Project. AI-VA’s prequalification number is G303 and evidence of prequalification is included as in Appendix 3.2.8.

3.2.9 AI-VA has the capability to obtain a performance and payment bond for the $59.8M estimated contract value of the Project as exhibited by the surety letter in Appendix 3.2.9.

3.2.10 Attachment 3.2.10 SCC and DPOR Information and full-size copies of individual licenses for the AI/WR&A Team business entities and Key Personnel are included in Appendix 3.2.10.

3.2.11 AI-VA will achieve the 13% DBE participation goal for the Project. AI consistently meets DBE goals and has met the DBE goal on both of our completed design-build projects in Virginia.

Respectfully,

Aaron T. Myers, Vice President/General Manager
American Infrastructure – VA, Inc.
3.3 Team Structure
The AI/WR&A Team’s previous and current experience working together presents a well-integrated team for the Route 659 Project (the Project). Our Key Personnel are currently working together on VDOT’s Walney Road Bridge Replacement Design-Build (DB) Project. AI and WR&A have formed an integrated team that includes DBPM (Thomas Heil, PE), DM (John Maddox, PE), QAM (Brian Henschel) and Construction Manager (Ivan Saer, PE), and have built relationships which will be an asset to VDOT on the Project.

**KEY PERSONNEL**

The key personnel identified for the Project were selected based on their performance of similar tasks on previous similar projects in combination with their expertise to successfully manage the project risks. The scope of work and challenges these individuals are managing on the Walney Road project are very similar to those which this team will face on the Project, specifically 2 to 4-lane widening on existing alignment; intricate TMP/MOT phasing; single-span bridge design and construction; complex utility coordination/relocation/betterments; challenging SWM BMP’s and coordination with the local park authority (FCA). The following role and experience overviews highlight their individual strengths with respect to the Project and Figure 3.5.1 provides an overview of their relevant qualifications.

**Design-Build Project Manager (DBPM): Thomas Heil, P.E.** has 28 years of experience with the design and construction of major transportation projects. He has held management positions (DBPM / DM / EM) on six separate DB/PPTA transportation projects in Virginia since 2006, which range in size from less than $10M to $1.39B and is currently serving as the DBPM for two VDOT NOVA DB projects (Walney Road Bridge Replacement and Rolling Road/Franconia-Springfield Pkwy Interchange Improvements). He has significant experience leading large multi-disciplinary teams and has refined his project management skills with VDOT by successfully delivering over 80 L&D, TE and Environmental projects. His work on the VDOT NOVA District Route 7 TCL projects, where he served as PM for development of the FI/RW plans and VDOT bridging documents, provided him with special insight and experience working with NVRPA on the re-alignment of the W&OD trail through the Route 9 interchange. Since 1997, Mr. Heil has worked with VDOT, municipalities, stakeholders and the traveling public to improve Northern Virginia’s transportation infrastructure.

**Quality Assurance Manager (QAM): Brian Henschel, P.E., CCM, PMP** has over 19 years of experience on roadway, bridge, and utility projects and has served in quality assurance, quality control, and project management roles on 11 design-build projects. He is currently filling the role of QAM on two design-build projects, the GMU Campus Drive Connector Route 123 Bridge and Improvements and the Route 636 over BBRR PPTA, and is the QC Manager on 3 VDOT DB projects. Mr. Henschel also has 6 years of experience at VDOT as a Design-Build Project Manager, where he worked directly with AI on the Route 29 over Tye River Bridge project, which was delivered seven months ahead of schedule and presented by VDOT’s as an example of “All parties acting as a team with the project being placed ahead of individual interests”. During his tenure at VDOT, Mr. Henschel was also an Area Construction Engineer in responsible charge for over $200M in projects, including the 12-mile long, $120M Route 29/Madison Heights Bypass.

**Design Manager (DM): John Maddox, P.E.** has 29 years of experience designing major highway facilities and has been functioning in the role of DM for over 20 years. Since 2001, Mr. Maddox has managed over 100 projects for VDOT in the NOVA District. He has also been the DM on several major VDOT projects in the NOVA District including the Fairfax County Parkway Interchange at Fair Lakes Parkway, the Walney Road Bridge Replacement and Road Widening DB and the Fall Hill Avenue Widening and Mary Washington Boulevard Extension DB. He has designed several similar four-lane urban minor arterial projects with sidewalk and shared-use facilities and has extensive experience with VDOT projects requiring right-of-way acquisition, utility relocation and coordination. Through his successful delivery of previous projects in Northern Virginia, Mr. Maddox has demonstrated his ability to seamlessly lead multi-discipline teams spanning numerous offices and effectively integrate subconsultants into the project.
Route 659 (Belmont Ridge Road) – Reconstruct to 4-Lanes
From: Route 642 (Hay Road) To: Route 2150 (Gloucester Parkway)

Construction Manager (CM): *Mr. Ivan Saer, P.E., DBIA* has 17 years of construction experience and for the past 5 years has been building transportation projects in accordance with VDOT specifications (*Mulligan Road – Phase I* and *Saintsbury Drive Improvements*). He is currently serving as the CM on VDOT’s *Rolling Road/Franconia-Springfield Parkway Interchange Improvements DB project* and providing pre-construction advising/support services to Mr. Heil, our DBPM, on the AI/WR&A Team’s *Walney Road Bridge Replacement and Roadway Widening DB project* for VDOT. As the CM on the *Saintsbury Drive and Vienna Metro Improvements project*, Mr. Saer constructed a $20M multi-modal roadway project that included a 33 phase MOT effort to safely accommodate vehicles, buses, and pedestrians at the active Vienna Metro Kiss-Ride facility. Mr. Saer’s focus on pedestrian safety led to him serving as CM for the demolition of a railroad bridge/abutments that traverse the Four Mile Run Trail, a major east/west trail connection to the Mount Vernon Trail in Alexandria/Arlington. He worked closely with NVRC and municipal park planners to develop a MOT phasing plan focused on all facility users, including strollers, walkers, runners, bicyclists and other users. This experience and expertise will be invaluable to the AI/W&RA Team, VDOT and NVRPA in planning and executing the bridge construction over the W&OD Trail.

*Figure 3.5.1 Key Personnel Experience Overview*

**Design-Build Project Manager**
- **Thomas Heil, PE**
  - 28 yrs exp, with VDOT NOVA since 1997
  - DBPM for 2 VDOT Design-Build Projects
  - 4 VDOT DB/PPTA Projects
  - W&OD Trail/NVRPA Exp
  - Third-Party Coordination
  - Pre-Construction Expertise

**Quality Assurance Manager**
- **Brian Henschel, PE**
  - 19 yrs exp, with 16 yrs VDOT Quality Management
  - QAM for 2 VDOT Design-Build Projects
  - 11 Design-Build Projects, including 8 for VDOT
  - QA/QC Plan Development
  - 6 yrs working for VDOT

**Design Manager**
- **John Maddox, PE**
  - 29 yrs exp, with VDOT NOVA since 2002
  - DM for 2 VDOT Design-Build Projects
  - 20 yrs DM exp including similar sized projects
  - Complex Roadway/Bridge/MOT Sequencing

**Construction Manager**
- **Ivan Saer, PE, DBIA**
  - 18 yrs exp, with 5 yrs constructing to VDOT specs
  - CM for 1 VDOT NOVA Design-Build Project
  - AFC Plan Conformity
  - Complex Multi-Phase Multi-Modal MOT
  - RLD/ESCCC Certified

**ORGANIZATIONAL CHART AND NARRATIVE**
Our organizational chart shows the chain of command for all companies and includes the individuals responsible for pertinent disciplines. This organizational structure is similar to the structure being utilized by the AI/WR&A Team on VDOT’s *Walney Road Bridge Replacement and Roadway Widening DB project*. AI and WR&A will be supported by the firms identified in Table 3.3.1.

*Table 3.3.1 Subconsultants for the AI/WR&A Team*

<table>
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<tr>
<th>Firm</th>
<th>Role</th>
<th>Reporting</th>
<th>Relevant Experience</th>
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<tbody>
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<td>Continental Field Services, LLC</td>
<td>ROW Acquisition and Property Owner Negotiations</td>
<td>WR&amp;A</td>
<td>Acquired over 400 parcels for VDOT in NOVA in the last 10 years, including 143 parcels on the I-495 HOT Lanes project.</td>
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<tr>
<td>DMY Engineering Consultants, LLC (DBE)</td>
<td>Geotechnical Drilling / Geotechnical Support</td>
<td>WR&amp;A</td>
<td>Providing similar services on VDOT’s Rolling Road DB project for the AI Team</td>
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<td>H&amp;B Surveying and Mapping (DBE)</td>
<td>Surveying</td>
<td>WR&amp;A</td>
<td>Performing similar services on VDOT’s Walney Road VDOT DB project for the AI/WR&amp;A Team</td>
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<td>Engineering &amp; Materials Technologies, Inc. (DBE)</td>
<td>QA Laboratory</td>
<td>WR&amp;A</td>
<td>Performing similar services on VDOT’s Walney Road VDOT DB project for the AI/WR&amp;A Team</td>
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<tr>
<td>DMY Engineering Consultants, LLC (DBE)</td>
<td>Construction QC Inspection /Laboratory</td>
<td>AI/WR&amp;A</td>
<td>Providing similar services on VDOT’s Rolling Road DB project for the AI Team</td>
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Section 3.3
Team Structure
VDOT – The Department will coordinate directly with our DBPM as the primary contact for all aspects of design and construction oversight of the Project. Open lines of communication between the QAM and VDOT will assist with monitoring quality assurance oversight. We anticipate VDOT’s oversight and support in our coordination efforts with project stakeholders. The AI/WR&A Team’s PR Manager will facilitate involvement of stakeholders to minimize additional effort needed by VDOT.

Design-Build Management – Our DBPM will serve as VDOT’s single point of contact for the Project. Reporting to the DBPM are five primary reports; the QAM, DM, CM, PR and Safety Manager. The DBPM will also focus on third party coordination and will support the ROW, Utility, and PR efforts during design and construction. He will maintain an action item log for potential issues and a three-month look-ahead schedule to ensure the Project remains on schedule and in-conformance with VDOT commitments.

Quality Assurance – The QAM will report to our DBPM, with independent oversight by VDOT. Our QAM will also monitor the design and construction QC programs and coordinate with the DM and CM to ensure conformance with contract requirements and the “approved for construction” plans and specifications.

Design – Our DM will report to the DBPM and coordinate with both the DBPM and CM to develop a cost-effective, efficient, and constructible design. He will also coordinate with the CM during construction to confirm field conditions meet design assumptions and reevaluate these assumptions if necessary. The design discipline leads, Design QA/QC Manager, and ROW Manager will report to our DM.

Construction – The CM will report to the DBPM and communicate directly with the PR Manager on construction coordination with project stakeholders. He will also communicate with the DM during both design and construction phases to ensure construction is consistent with the project design. Our CM will be on the project site for the duration of construction operations and will oversee the construction team, including quality control, schedule, utility coordination, maintenance of traffic, and environmental leads.

Stakeholder Coordination – Our DBPM, DM, CM and PR Manager will work closely with VDOT to coordinate construction over and around the W&OD Trail, host public meetings during design, provide construction progress updates, and coordinate third party reviews. Coordination with utilities and environmental stakeholders will be supported by design and construction task leads for these areas.

Bridge Design – Jeremy Schlussel, PE will work closely with Bridge Superintendent, Jeff Humphreys, DBIA, and Safety Manager, Sandra Genter during design development to optimize the bridge design with respect to constructability, cost, and safety of both the trail users and operations staff during construction. Mr. Schlussel is currently the Lead Structural Engineer for the GMU Campus Drive Connector Route 123 Bridge and Improvements DB and the Route 636 over BBRR PPTA projects.

Utilities – The DM and DBPM will be actively engaged in the utility coordination process. Design Utilities Lead, Daniel Seli, PE and Construction Utility Coordinator, Thomas Lewis, will work collaboratively with the utility companies to minimize utility impacts, incorporate utility requirements into the design, and coordinate the schedule for required relocations. Mr. Seli has led over 140 utility relocation task assignments for VDOT in the NOVA area. Mr. Lewis’s most recent utility coordination experience was for AI’s Fall Hill Avenue Bridge project, which involved the relocation of overhead utility lines along the length of the project and a utility bridge relocation across the Rappahannock Canal. Utilities included Dominion Virginia Power, Columbia Gas, Cox, Comcast, Verizon, and the City of Fredericksburg Water/Sewer.

Environmental Management – Environmental/Permitting Lead, Amanda Baxter and Construction Environmental Compliance Manager, Michael Lachowicz will work collaboratively with the environmental stakeholders to finalize permits and ensure the conditions of the environmental permits are met during construction.
3.4 Experience of Team
Route 659 (Belmont Ridge Road) – Reconstruct to 4-Lanes
From: Route 642 (Hay Road) To: Route 2150 (Gloucester Parkway)

The AI/WR&A Team’s collective experience with Design-Build (DB) delivery, roadway widening/dualization, challenging bridges, and with VDOT’s NOVA District presents a strong team for the Project. Collectively, the AI/WR&A Team brings over 68 years of providing services to VDOT and over 133 years of providing design and construction services in the Northern Virginia area.

American Infrastructure (AI) is a vertically integrated, heavy civil contractor that has provided quality construction services in the Mid-Atlantic region since 1939 and in Northern Virginia since 1967. AI has performed over $2.3B of construction over the last five years, including 9 interstate widening projects valued at $698M. AI has a Virginia workforce of 300 employees and 250 pieces of heavy equipment which is supported by a total of 1,600 employees and 1,300 pieces of heavy equipment in the region, all of which are located within 200 miles of Loudoun County. Recent work includes completion of the Saintsbury Drive and Vienna Metro Improvements project ($20M) in one construction season; initiation of the Route 659 Belmont Ridge Road project for Goose Creek Estates, LLC ($8.9M); and award of two VDOT DB Projects, specifically the Walney Road Bridge Replacement ($11.3M) and Rolling Road Interchange Improvements ($9.8M) projects.

Whitman, Requardt & Associates, LLP (WR&A) has provided transportation design services to VDOT for over 60 years and engineering, planning and construction management services in the Mid-Atlantic region for nearly 100 years. Currently ranked #118 by Engineering News-Record, WR&A has one of the largest design groups in Virginia (with over 150 engineers and technicians) and a total staff of over 640 in the region. WR&A is a multi-disciplined engineering firm that has experienced staff for roadway, bridge, retaining wall, drainage, river mechanics analysis, traffic engineering, ITS, utility and geotechnical engineering and is currently providing design services to VDOT for numerous projects.

WR&A held the VDOT NOVA District On-Call contract from 2008-2014 which included projects such as Route 29 Widening and Bridge Replacement Design-Build, Gum Springs Road Widening and I-495 Shoulder Use Project Design-Build Plans. WR&A recently ranked as the top consultant for the current VDOT Statewide L&D On-Call Contract. WR&A is also currently providing design services for the Route 28/I-66 Interchange project for the VDOT NOVA District, and is the designer for the Walney Road Bridge Replacement and Roadway Widening and Fall Hill Avenue Widening and Mary Washington Boulevard Extension DB projects.

**DESIGN-BUILD EXPERIENCE**

AI has been awarded 14 Design-Build (DB) projects across the Mid-Atlantic region valued at over $685M, including 6 VDOT DB projects. WR&A has completed over 60 design-build transportation projects in the region in the last ten years and is currently working on three VDOT DB projects. Eight examples of relevant AI and WR&A DB projects of similar scope and scale to the Project are highlighted in Table 3.4.1 below.

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<td>Walney Rd. Bridge Replace/Widening ($11M)</td>
<td>AI</td>
<td>0.6 mi. roadway widening from 2 to 4-lanes</td>
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<tr>
<td>Middle Ground Boulevard Extension ($34M)</td>
<td>AI</td>
<td>1.2 mi. of new four-lane divided highway</td>
</tr>
<tr>
<td>Rte. 895 Richmond Airport Connector ($39M)</td>
<td>AI</td>
<td>1.6 mi. of new four-lane highway</td>
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<tr>
<td>GMU Campus Drive Connector Route 123</td>
<td>WR&amp;A</td>
<td>0.25 mi. roadway improvements including new bridge</td>
</tr>
<tr>
<td>Bridge and Improvements ($15M)</td>
<td></td>
<td></td>
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<tr>
<td>MD 237 Bridge and Widening ($38.4M)</td>
<td>WR&amp;A</td>
<td>3 mi. widening 2 to 4-lane divided roadway</td>
</tr>
<tr>
<td>I-695 Widening from I-97 to MD-10 ($9.5M)</td>
<td>AI</td>
<td>3 mi. of lane widening</td>
</tr>
<tr>
<td>I-476 Widening and Reconstruction ($86.4M)</td>
<td>AI</td>
<td>4 mi. widening 6-lane divided highway</td>
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<tr>
<td>US 40 Interchange at MD 715 ($17.7M)</td>
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<td>2.4 mi. highway widening from 4 to 6-lanes</td>
</tr>
<tr>
<td>Fall Hill Avenue Widening ($30.8M)</td>
<td>WR&amp;A</td>
<td>2.2 mi roadway widening and bridge</td>
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</tbody>
</table>
Route 659 (Belmont Ridge Road) – Reconstruct to 4-Lanes
From: Route 642 (Hay Road) To: Route 2150 (Gloucester Parkway)

**AI/WR&A Shared Work History**
AI and WR&A have recently partnered in the pursuit of two VDOT DB projects in NOVA, resulting in award of the *Walney Rd. Bridge Replacement/Widening project*. In a traditional design-bid-build relationship, AI and WR&A have been working together since 2009 on transportation projects throughout the region. Our transportation project experience where we worked together includes:

- Walney Road Bridge Replace/Widening DB, *Fairfax County, VA*
- Pohick Sewer Trunk Line Upgrade, *Fairfax County, VA*
- Route 208 Bridge over Lake Anna, *Spotsylvania County, VA*
- Nicodemus Road Bridge, *Baltimore, MD*
- Runway 15R/33L Earthwork Package at BWI Airport, *Baltimore, MD*
- I-695 Inner & Outer Loop Safety & Resurfacing, *Baltimore, MD*
- Broening Highway over Colgate Creek Immediate Girder Repairs, *Baltimore, MD*

**Design-Build Approach** – The AI/WR&A Team’s approach to design-build delivery is based upon integration, cooperation, respect, collaboration, and performance. Our focus is to achieve the client’s goals, ease the construction burden on local residents, safely accommodate roadway users/commuters, and deliver a quality product that meets the project’s technical requirements, schedule constraints and cost parameters. Some of the components and tools employed by our integrated team include:

- Selecting teaming partners we have worked successfully with on other similar projects;
- Committing key personnel experienced at assessing and managing the project risks;
- Partnering with VDOT and project stakeholders to achieve project objectives and coordinate effectively;
- Continuously analyzing and mitigating risks during the proposal, design, and construction phases;
- Conducting thorough constructability reviews at each design stage to ensure safe and effective construction practices, minimize the construction duration/impacts to the public; and confirm schedule adherence;
- Utilizing innovative design to avoid/minimize impacts to traffic, utilities, ROW, and the environment; and
- Ensuring the quality control of all construction practices and performance of all work performed in accordance with the contract requirements, AFC documents and VDOT’s quality standards.

**Work History Forms (Appendix 3.4.1)**
AI and WR&A have highlighted the relevance of the projects that best demonstrate our individual qualifications for the Project in Table 3.4.2, and expanded on their relevance on the Work History Forms.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Middle Ground Blvd Extension</th>
<th>Route 60/ German School Rd Widening</th>
<th>Saintsbury Dr. Vienna Metro Improvements</th>
<th>Fairfax County Pkwy Interchange/Fair Lakes</th>
<th>Route 123/Route 1 Interchange</th>
<th>Walney Road Bridge Replace/Widening</th>
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<td>✓</td>
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Section 3.4
Experience of Team
Route 659 (Belmont Ridge Road) – Reconstruct to 4-Lanes  
From: Route 642 (Hay Road) To: Route 2150 (Gloucester Parkway)

In preparation of this SOQ, the AI/WR&A Team has reviewed the RFQ documents, visited the project site, and evaluated the existing site conditions including visual inspections of traffic flow/congestion along the corridor. After evaluation and consideration of the potential risks for the Project, our team has identified 1) Bridge over the W&OD Trail, 2) Utility Relocations and Adjustments, and 3) Maintenance of Traffic as the three critical risks for discussion in this SOQ. These were selected based on their impact to the schedule, public safety, and required third party coordination. Other risks considered included right-of-way acquisition, geotechnical, and stormwater management. To manage the risks associated with the construction of the Project, the AI/WR&A Team will complete the requisite analysis, minimize potential impacts through design and construction optimization, and leverage our experience with similar risks through individual expertise and application of previous lessons learned.

**BRIDGE OVER THE W&OD TRAIL**

**Risk Description:** The proposed grade separation of the roadway and dual bridge structure over the W&OD Trail presents risks for both design and construction and is critical to the success of the Project. As presented in the RFQ documents, this would be only the 3rd known bridge in Virginia to have a spread footing supported on MSE fill and the 1st directly for VDOT.

*Design* – While the proposed simple span bridge structure located over the W&OD Trail is not inherently difficult to design, this bridge will have the challenge of being designed to meet various AASHTO criteria for superstructure. This criteria includes meeting the span to depth ratio, deflection criteria for pedestrian loading, and differential deflection due to skew and meeting the constructability checks. For the substructure, the design risk involves ensuring that the currently proposed spread abutments supported by the MSE fill will not have differential and or long term settlement issues that will become a long term maintenance issue or that the quarry operations (blasting) will have any impact on potential settlement of the approach fills.

*Construction* – The bridges on this project are located in an environment with overhead utility lines, a multi-use trail and traffic and right of way constraints. This results in limited construction access for constructing some of the bridge elements and limited staging areas for equipment and materials. The conditions also will limit sizes for lifting equipment and bridge components themselves. The requirement to maintain vehicular traffic on Route 659, pedestrian and equestrian traffic on the W&OD trail and the probability of not being able to de-energize the overhead utility lines, which are directly over the proposed bridges, limit areas to position cranes or other lifting equipment.

**Impacts:** While the design of the structure is not unique, the space constraints, adjacent facilities, and project location dictates limits in construction access and permissible construction time. Due to the extensive public use of the trail and the potential impacts to the vehicular traffic, it is anticipated that the construction time will be reduced. Transport and delivery of the structural elements, such as the structural steel beams, will have a substantial impact on the construction schedule and public inconvenience. Coordination with all of the stakeholders will be critical to take into account the impact on construction activities and project completion.

**Mitigation Strategies:** WR&A and AI are leaders in the bridge design and construction fields, respectively, having worked on numerous VDOT bridge projects. WR&A has successfully delivered over 150 bridge projects in the past ten years, including the design of a bridge with spread footing supported on MSE fill (Snowden Bridge Blvd over CSXT, Frederick County). AI’s complex bridge construction experience includes three railroad bridges on VDOT’s Hampton Boulevard Grade Separation project, a bridge over CSXT and Elm Avenue on the I-581/Elm Avenue Interchange Improvements DB project, and a bridge over CSXT RR on the Middle Ground Boulevard Extension DB Project. Based on this experience, the AI/WR&A Team will employ the following strategies to mitigate this risk:

*Superstructure* – To reduce the design impact, our team will conduct a review of the proposed geometry of Rte. 659 and of the W&OD Trail to potentially reduce the skew at the crossing and or reduce the opening.
The reduction in skew angle and/or reduction in skew will allow for a more conventional design, and may even allow the bridge superstructure to potentially be pre-stressed concrete, which would reduce the overall impact during installation of the superstructure.

**Substructure** – As mentioned, our design team will review the geometric requirements to potentially reduce the skew angle such that a semi-integral abutment could potentially be used; which would allow for the placement of the approach slab on the backwall (as opposed to being a buried approach slab). This raising of the approach slab will reduce the impact to the roadway in the future if it is widened. While the proposed spread footing supported by MSE fill is efficient from a design and construction standpoint; a thorough geotechnical program will be required to be undertaken to ensure that there is no potential for differential settlement. WR&A undertook a similar program when designing the Snowden Bridge Blvd over CSXT in Frederick County. In addition to the settlement analysis, the operations of the quarry will need to be reviewed to make sure blasting vibrations through the rock will not create a secondary settlement issue on the proposed fills.

![Figure 3.5.1 Elevation View of Bridge with Spliced Girders](image)

**Construction Staging** – To reduce the construction risks associated with construction of this bridge under the existing lines and over the active trail, various innovative construction techniques will be reviewed and a safe, cost-effective approach will be selected. This will include the potential de-energizing of the power lines temporarily and the use of structural steel detailed with multiple splices, as shown in Fig. 3.5.1. The smaller structural steel segments would allow the use of smaller cranes from below to set the sections on temporary supports. The use of smaller cranes could eliminate the need to de-energize the overhead lines. As a secondary benefit, the temporary shoring towers could then be used as part of the pedestrian protection structure that will be necessary to protect the trail users as they travel through the construction zone. As an alternate means to reduce the construction impacts, the girders could potentially be launched.

**Pedestrian Safety** – As mentioned, protection of the public during construction is critical. To the extent possible, major operations requiring closure of the trail will be performed outside of the trail operating hours (dusk to dawn). For activities during trail operating hours, a temporary protective structure will be provided to allow safe passage through the work zone; similar to the protective structure specified by WR&A on the 9th St. over Roanoke River and Greenway project shown in Fig. 3.5.2. For the Project, the protection structure will be designed to accommodate pedestrians and cyclists as well as equestrian traffic.

![Figure 3.5.2 Pedestrian Protection at the Roanoke River and Greenway Project](image)
Route 659 (Belmont Ridge Road) – Reconstruct to 4-Lanes
From: Route 642 (Hay Road)  To: Route 2150 (Gloucester Parkway)

Bridge Design and Construction Expertise – The bridge design will be led by Jeremy Schlussel, P.E., with over 19 years of experience designing bridges for VDOT and four design-build projects. His project experience designing major structural steel bridges includes the I-81 Bridges over the New River, which are jointless structures over 1600’ in length with maximum spans of 270’. Bridge Superintendent, Jeff Humphreys, DBIA, will work with Mr. Schlussel to optimize the bridge design, evaluate constructability, and incorporate safety planning for into the final design. Mr. Humphrey’s bridge design optimization and construction experience includes long, single-span, steel girder bridges with unique construction constraints. His VDOT DB bridge experience includes the Route 29 NBL Bridge Replacement over Tye River, Middle Ground Boulevard Extension, and I-581/Elm Avenue Interchange Improvements projects.

Role of VDOT and other Agencies: VDOT’s role will involve review and oversight of the project design and during construction. Our team will work with NVRPA and will keep VDOT abreast of the work being done over the trail. VDOT will review the design submittals and provide feedback to the AI/WR&A Team for acceptability. Having designed other spread footings supported by MSE fill with similar soils, our team will provide VDOT with the best approach along with a comprehensive design that will fulfill the need and purpose of the Project.

Utility Relocations and Adjustments

Risk Description: Existing private and public utilities present risks associated with determining the cost responsibility of the private utility relocation, right of way/easement acquisition for relocated utilities, and the scheduling of relocations. Buried electric, fiber optic and telephone lines and duct banks, electric transmission and distribution power poles, and telephone poles exist within the project limits and will be impacted by construction of the bridge and road widening. The utilities impacted by construction of the Project include:

- DVP Transmission and Distribution
- Loudoun Water and Sanitary Sewer
- Washington Gas Facilities
- Verizon VA, LLC/MCI Business
- Comcast
- ATT FI

The Dominion Power Transmission lines and the Loudoun Water Transmission facilities have prior rights which make their relocations a project cost. Prior rights of the remaining private utilities are not known at this time, and will determine if the relocation/adjustment costs would be borne by the Project or the utility owners.

Dominion Electric Overhead Transmission: Based on the preliminary design, the overhead transmission mains/towers are in conflict with the proposed bridge and will require relocation or adjustment. The existing transmission line is a double circuit 230kv line that will require a minimum clearance of 25.5’ from the proposed roadway elevation and requires the contractor to keep all equipment 20’ away from any live line. Adjustments or relocations of the transmission towers can be a lengthy process for Dominion Power design and construction activities. Dominion Power estimates the total design and construction time to adjust or relocate the transmission main towers to be 18 to 24 months.

Dominion Electric Distribution Poles and Associated Communication Lines: Dominion Power Distribution utility poles will also require relocation because they are in conflict with the proposed sidewalk, curb, or the drive lane. The poles also carry cable and communication facilities that will be relocated along with the Dominion Power facilities. Relocation of these facilities follows a sequential process with Dominion Power relocating the poles and their lines followed by the cable companies relocating their lines to the new poles and finally the telephone facilities relocating to the relocated poles. The relocations cannot occur concurrently so the scheduling of the relocation must be initiated early in the Project and coordinated to avoid impacting the overall project schedule.

Washington Gas 8-inch Transmission: The existing 8-inch gas transmission is in conflict with portions of the Project. The gas main will have to be adjusted vertically if the proposed cut does not allow sufficient cover. The bridge work will require the gas main to be relocated horizontally.
Route 659 (Belmont Ridge Road) – Reconstruct to 4-Lanes
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Loudoun Water Transmission: Loudoun Water facilities 24-inch and 30-inch/20-inch ductile iron transmission water mains are in conflict with areas of the Project. The 24-inch line runs south from the water treatment plant and then east on Hay Street. The 30-inch/20-inch waterline runs north along the roadway towards Route 7. Depending on the design, the depth of the waterline will have to be adjusted vertically depending on the proposed cut. In the bridge area, the waterline will have to be relocated horizontally due to construction of the bridge foundation. Additionally, Loudoun Water has plans to upgrade both of these transmission lines to 36-inch lines, therefore betterment will need to be coordinated with the overall project schedule.

Impacts – Utility coordination and relocation will impact project schedule, cost, right of way/easements and ultimately the design and construction of the bridge. Specifically, project costs and schedule associated with the relocation of utilities could be impacted by the following:
- Relocation of the existing utilities
- Additional right-of-way and/or easements required for relocations
- Roadway and bridge construction sequence, along with the type of bridge
- Address major transmission facilities (electric and water) and costs for temporary arrangements
- Betterment plans of the utility (electric and water)
- W&OD Trail (NVRPA) coordination of utility easements on trail property

Mitigation Strategies – To maintain the proposed project schedule and control project costs, the AI/WR&A Team will work collaboratively with utility owners, VDOT, and other stakeholders to manage the utility risk for the Project. Our preliminary coordination efforts include discussions with utility owners along the Project and Dominion Power regarding the requirements for their transmission facilities. To avoid/reduce impacts to the transmission facilities, we have started evaluating innovative bridge design and construction methods and are investigating the potential use of a utility corridor to place relocated utilities.

Utility Task Force – Immediately upon award a Utility Task Force will be established, with a strong leader, Daniel Seli, P.E. assigned to push progress. Dan has managed the NOVA On-Call Utility Relocation Contract since 1996, VDOT Utility Coordination Contract since 2011, and has extensive experience in the design of large diameter water and wastewater facilities and utility relocation efforts on design-build projects. The Task Force approach has proven successful on over 140 utility relocation projects completed in VDOT’s Northern Virginia District and on 2 DB projects with the Department. The task force will meet regularly to ensure proper coordination, identify and resolve all issues in a timely manner, confirm the location and prior rights of all existing utilities, and determine any special requirements of the facilities and evaluate the roadway, drainage and bridge designs to eliminate or reduce utility conflicts. As-built information will be reviewed and test pits will be excavated at potential areas of conflict to accurately determine exact vertical and horizontal locations.

Utilize Current Relationships: We will utilize our utility design, relocation coordination, and construction experience to design and construct a project that will minimize impacts to the existing utilities and allow for construction of the Project to proceed on an aggressive, safe, and attainable schedule. Through our VDOT relocation and utility coordination contracts, we have experience designing the relocation of major power, water, gas, fiber and telephone facilities. WR&A has recent experience coordinating relocation and adjustments of Dominion Power transmission facilities on projects in Northern Virginia including the Fairfax County Parkway Widening and Interchange at Fair Lakes Parkway, the I-66/Route 234 Park and Ride, and currently on the Fall Hill Avenue Widening DB project. Work on Dominion Power facilities included both adjustment of towers and relocation of towers due to roadway improvements. From these experiences we
have fostered a relationship with Dominion Power transmission group and fully understand their requirements and standards. At each stage of design, we will ensure that DVP’s design and construction requirements are being maintained.

**Development of UT-9s:** The exact location, type, and size of private and public utilities will be confirmed; conflicts will be determined; and any special relocation requirement will be identified. Private rights for utilities will be determined so that cost responsibilities can be assigned for the relocations. Existing VDOT policies and procedures will be followed including the proper completion of VDOT UT-9 forms and updates to the RUMS system.

**Coordination to Minimize Impacts:** The design will minimize impacts to the power, water and gas infrastructure if feasible. If the design cannot be modified then the facilities will be relocated and all necessary easements and construction cost will be estimated. The AI/WR&A Team will also coordinate with Dominion Power, Loudoun Water and Washington Gas to present the best available solution. WR&A has extensive experience in the design of large water transmission mains for Fairfax Water, Prince William County Service Authority, and Arlington County and has effectively coordinated utility relocations on numerous VDOT task assignments involving Loudoun Water and Dominion Power.

**Construction Experience:** AI has extensive utility coordination experience on previous projects where construction was required around and over large utilities. Based on our experience, this coordination requires advanced notice to the utility company prior to the start of construction and review of construction means and methods while working adjacent to or crossing facilities. Field coordination may be required and includes oversight by utilities representatives during construction to verify the appropriate caution is exercised. The following coordination and construction measures will be implemented to minimize the overall risk of the utility relocations for the Project:

- Frequent coordination meetings early and often with utility owners to review project schedules and alleviate project issues that arise.
- Development of a utility relocation corridor for the relocation of utilities in a joint use utility easement to speed utility design efforts, minimize easements, and simplify the ROW acquisition efforts.
- Provide assistance to utility companies in development of the required easement documentation to reduce efforts required by the utility company and speed the relocation process.
- Provide clearing and grubbing of the utility corridor and provide an access road to the corridor to facilitate the relocation of the utilities.
- Coordinate with the utility companies on using a single contractor to complete the relocations to streamline coordination with one utility contractor and reduce the duration for the utility relocations.
- Coordinate bridge design and construction methods to minimize impacts to the Dominion Power Transmission mains and discuss potential shutdowns of the transmission mains with Dominion Power during placement of bridge girders to improve safety and simplify construction.

**Role of VDOT and Other Agencies:** VDOT’s role will be to participate in the UFI, support the UT-9 review as necessary, and complete the review of project design submittals for in-plan and out-of-plan utilities. All utility relocation agreements will be provided to VDOT for coordination as needed. VDOT will provide access to the RUMS system for the AI/WR&A Team to update/maintain and for VDOT’s use in tracking the Project.
MAINTENANCE OF TRAFFIC

Risk Description: Traffic volumes through the Project area are currently between 13,000 and 14,000 vehicles per day with approximately 700 vph in the peak direction during the peak periods. While these volumes do not present a major MOT challenge, the Project requires careful consideration to maintain safety and avoid increasing delay and queues during peak periods. The MOT risk on the Project is comprised of three main components, including:

1. Safe Passage along the W&OD Trail
2. Grade Differentials at Alignment Crossings
3. Sequencing of Utility Relocations

Our following analysis of the MOT risk, impacts, and mitigation strategies will discuss the risk as it relates to each of these three components specifically.

Safe Passage along the W&OD Trail – The W&OD trail is heavily used by pedestrians and cyclists across its 45 mile length. Safe passage must be maintained for pedestrians, cyclists and equestrians through the work area during construction of the bridges over the trail. The existing trail crossing at Belmont Ridge Road includes a pushbutton activated flasher on pedestrian warning signs to warn motorists that there are trail users present. There are also zigzag pavement markings on the approaches to the crossing to help alert motorists to the crossing. Motorists appear to heed the warnings; however trail users need to be able to clearly see all approaching traffic to safely cross the roadway.

Grade Differential at Alignment Crossings – Although much of the roadway can be built while maintaining traffic on the existing roadway, there are grade differences of up to 3’ at the points where the proposed alignment crosses the existing roadway. The proposed grade change of 15’ at Jackpit Lane necessitates the permanent closure of this intersection with access provided via Builders Lane according to the concept plans; however, there is still a grade differential of about 4’ at the Builders Lane intersection. There is also a 4’ fill proposed at the Belmont Station Drive intersection; a 2’ fill proposed at the Chesterton Street intersection; and a cut of more than 1’ at the Portsmouth Boulevard intersection. Although these are mostly low volume intersections, access must be maintained to area homes and businesses.

Sequencing of Utility Relocations – Utility relocations, especially buried utilities such as water transmission lines, frequently dictate the initial phases of a project and can significantly impact the sequence of construction/MOT scheme. Utility relocations are typically done in advance of the roadway construction limiting areas for moving traffic through the work area to the footprint of the existing roadway. Since much of the proposed roadway is off alignment from the existing roadway, the utilities may also be pushed away from the existing roadway; however, with the magnitude of the cuts and fills on the Project, it may be difficult to relocate utilities to the new alignment prior to performing initial grading.

Impacts: Large cuts and fills could cause inadequate sight distances for roadway and trail users during construction but excessive restrictions on the work area to protect sight lines impact the project schedule and overall quality of the work. Frequent changes to traffic patterns can be confusing to roadway users and also compromise worker safety. Access limitations/detours can impact area businesses and delay motorists.

Safe Passage along the W&OD Trail – Belmont Ridge Road crosses the trail near milepost 29.5; therefore, closing the trail at this point would effectively cut it in half. Cycling enthusiasts frequently travel to Northern Virginia to ride the length of this historic trail so closing the trail would impact tourism and would be especially harmful to the businesses that serve trail users including hotels, restaurants and service providers such as Trail’s End Cycling in Purcellville and Go Out and Go Tours in Ashburn, located less than a mile from the Belmont Ridge Road crossing. Failure to maintain clear sight lines for trail users and approaching traffic at the grade crossing would create a safety hazard for trail users.

Alignment Crossings with Grade Differences – The grade differentials where the proposed alignment crosses existing travel lanes may require leaving gaps in the segments built in the initial phases of construction.
These gaps impact overall quality because the gaps have to be “filled in” rather than the segment being built in a continuous fashion. These gaps also impact work zone safety because traffic is being routed through the work area and may impact sight lines at intersections. Filling the gaps under traffic requires working in confined areas, reduces capacity, and may require total closure of cross streets, potentially impacting access to residents and area businesses.

**Sequencing of Utility Relocations** – Relocating utilities in the existing roadway prior to roadway construction may require significant flagging operations which could result in long traffic queues and delays to motorists if not monitored carefully. Roadway users, especially pedestrians, can be confused in areas controlled by flaggers and a safety risk to roadway users and workers may be presented where there is little separation between the work area and the adjacent travel lane. Delays to the project schedule could include waiting for utilities to be relocated for certain work activities, demands on utility crews from other projects, and an inefficiency of operations requiring coordination with utility relocations.

**Mitigation Strategies:** The AI/WR&A Team will carefully phase the Project to safely and effectively mitigate the risks associated with MOT. The strategies/approaches which we intend to employ, and will be fully evaluated during the RFP phase of the Project, include:

- Building the new roadway while maintaining traffic on the existing roadway to the greatest extent possible, including the NB lanes bridge over the W&OD Trail. The SB Bridge over the W&OD Trail is anticipated to be built after traffic is shifted to the new NB lanes for the length of the Project.
- Closing low volume intersections during a phase of the Project will be considered to provide better overall quality of the final roadway and a safer work area, specifically at Chesterton Street and Belmont Station Drive. As demonstrated in Figures 3.5.3. and 3.5.4., during the closure Chesterton Street can be accessed via Portsmouth Place – a detour of only 1 mile and Belmont Station Drive can be accessed via Gloucester Parkway – a detour of only 1.25 miles. Detouring traffic in this manner will not adversely impact signal operations on Belmont Ridge Road; however, coordination with the County project will be necessary to ensure that project has not reduced capacity at the Gloucester Parkway signal.
- Building the new NB lanes north of Portsmouth Place and the improvements on Portsmouth Place by shifting traffic onto the newly constructed SB lanes and temporary ramps/widening, as demonstrated in Figure 3.5.5.
- Utilizing temporary ramps to accommodate grade differences, which are anticipated at Builders Lane and at the driveway to Belmont Ridge Self Storage, depending on the status of the County project.
- Maintaining uninterrupted access for local businesses and residents. Specifically, access to the water treatment plant will be maintained via Heritage Lane while the other access points are under construction and access to Luck Lane will be continuously maintained.
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**Safe Passage along the W&OD Trail** – The existing grade crossing will be maintained during the initial phases of construction. Horizontal and vertical sight lines will be carefully checked to set the limits of permanent and temporary construction. Temporary wire walls may be utilized to ensure that fill areas do not become obstructions. Proper stopping sight distance will be maintained for vehicles approaching the trail. The bridges over the trail will be designed to be safely erected without closing the trail during normal operating hours. This may entail night work for working over the trail and/or construction of a protective structure for trail users designed to accommodate pedestrians, cyclists and equestrians in accordance with NVRPA guidance.

**Alignment Crossings with Grade Differences** – The sequence of construction will be designed to reduce impacts due to grade differentials in the profile. While it is desirable to avoid full road closures and detours, temporary closures at low volume streets with good alternative access will provide a safer work area and better overall quality of the final roadway at those intersections. The need for temporary ramping and leaving gaps at intersections and crossovers can be further minimized by adjusting the project profile but it will be necessary to make sure that such change does not adversely impact other key points such as the Luck Lane and Builders Lane intersections and the bridges over the W&OD Trail.

**Sequencing of Utility Relocations** – The impacts of utility relocations can be minimized by establishing a utility corridor outside of the proposed roadway. If adequate property is not available to provide a separate utility corridor, the relocations will be moved outside of the existing roadway to minimize traffic impacts during construction. Shifting utilities to the new alignment should allow utility relocations to be completed before starting roadway work.

**Role of VDOT and other Agencies:** VDOT will review and approve the TMP/MOT, and will be requested to provide input into the design during over the shoulder reviews. The AI/WR&A Team anticipates leading the coordination efforts with trail users, motorists, and other stakeholders, with support from VDOT. Regular coordination meetings will be conducted with key stakeholders, including Loudon County (Public Works; Parks and Recreation; Transportation and Capital Infrastructure; and, Public Affairs and Communications); Loudon Water and other utility providers in the corridor; and appropriate representatives for the adjacent County project as necessary.
ATTACHMENT 3.2.6
State Project No. 0659-053-262, R204, C504, B670, B671

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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<thead>
<tr>
<th>Relationship with Offeror (Affiliate or Subsidiary)</th>
<th>Full Legal Name</th>
<th>Address</th>
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<td>American Infrastructure, Inc.</td>
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<tr>
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## Affiliated and Subsidiary Companies of the Offeror

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<td>D. M. Stoltzfus &amp; Son, Inc.</td>
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<td>Affiliate</td>
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<td>Affiliate</td>
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<td>Subsidiary</td>
<td>US 460 Mobility Partners, LLC</td>
<td>301 Concourse Blvd, Suite 300, Glen Allen, VA 23059</td>
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ATTACHMENT NO. 3.2.7(a)

CERTIFICATION REGARDING DEBARMMENT
PRIMARY COVERED TRANSACTIONS

Project No.: 0659-053-262

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: [Signature]  Date: 09/15/14  Title: Vice President/General Manager

AMERICAN INFRASTRUCTURE-VA, INC.  Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0659-053-262

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] 7-14-14 [Title]

CONTINENTAL ACQUISITION SERVICES, INC. dba CONTINENTAL FIELD SERVICE
Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0659-053-262

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.

\[Signature\] 7/14/2014  \[Vice President\]  
\[Signature\] Date \[Date\]  
\[Signature\] Title \[Title\]

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

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0659-053-262

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: [Signature] Date: 7.18.14 Title: Principal Eng.

ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0659-053-262

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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] July 15, 2014 [Name]

[Signature] Date [Title]

[Name of Firm]
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0659-053-262

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] [Date] [Title]

Mountain Empire Acquisitions, LLC

Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0659-053-262

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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 7/1/15  ___________________________ Owner

Denise Litzau  ___________________________ Property Title + Escrow, LLC

Name of Firm
ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0659-053-262

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.

John P. Mello    7/4/14    Sr. Vice President
Signature     Date     Title

Whitman, Requarth & Assoc.
Name of Firm
CERTIFICATE OF QUALIFICATION

AMERICAN INFRASTRUCTURE-VA, INC.

Vendor Number: G303

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

PREQUALIFIED

Your firm specializes in the noted Classification(s):

GRADING; MAJOR STRUCTURES; ASPHALT CONCRETE PAVING; MINOR STRUCTURES;
ROADWAY MILLING; SURFACE TREATMENT

Issue Date: January 31, 2014
This Rating and Classification will Expire: January 31, 2015

Suzanne FR Lucas, State Prequalification Officer

Don C. Silick, State Contract Officer

It is not permissible to alter this document, use after posted expiration date, or use by persons or firms other than those named on this certificate.
Appendix 3.2.9
Evidence of Obtaining Bonding
July 22, 2014

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

Re: American Infrastructure-VA, Inc.
   Contract ID Number: C00076244DE76 – State Project No. 0659-053-262, R204, C504, B670, B671. Route 659 (Belmont Ridge Road) – Reconstruct to 4-Lanes From Route 642 (Hay Road) To Route 2150 (Gloucester Parkway)

To Whom It May Concern:

American Infrastructure-VA, Inc., a subsidiary of American Infrastructure, is a highly regarded and valued client of Fidelity and Deposit Company of Maryland, Zurich American Insurance Company and Arch Insurance Company. Fidelity and Deposit Company of Maryland is rated A+ XV in the Best's Key Rating Guide, listed in the Department of the Treasury's listing of Approved Sureties (Department Circular 570) and licensed to transact business in the Commonwealth of Virginia. Zurich American Insurance Company is rated A+ XV in the Best's Key Rating Guide, listed in the Department of the Treasury's listing of Approved Sureties (Department Circular 570) and licensed to transact business in the Commonwealth of Virginia. Arch Insurance Company is rated A+ XV in the Best's Key Rating Guide, listed in the Department of the Treasury's listing of Approved Sureties (Department Circular 570) and licensed to transact business in the Commonwealth of Virginia. Fidelity and Deposit Company of Maryland, Zurich and Arch have expressed to them their willingness to provide bonding to support on individual projects in the amount of $250,000,000.00 and aggregate of $600,000,000.00. As surety for American Infrastructure-VA, Inc., Fidelity and Deposit Company of Maryland, Zurich American Insurance Company and Arch, with A.M. Best Financial Ratings as stated above, is capable of obtaining a 100% Performance Bond and a 100% Labor and Materials Payment Bond in the amount of the anticipated cost of construction, and said bonds will cover the Project and any warranty periods on behalf of the Contractor, in the event that American Infrastructure-VA, Inc. be the successful bidder and enter into a contract for this project.

In accordance with the normal practice, the willingness of Fidelity and Deposit Company of Maryland, Zurich American Insurance Company and Arch Insurance Company to extend suretyship will be based on their underwriting of the account at the time the bonds are requested. This letter shall be valid for a period of 180 days from the date of this letter.

In addition, we would expect that the execution of any final bonds would be subject to a review of the contract documents by American Infrastructure-VA, Inc., Fidelity and Deposit Company of Maryland, Zurich American Insurance Company and Arch Insurance Company as well as satisfactory evidence of financing for the project.

This letter does not constitute an assumption of liability. The issuance of bonds in connection with this Project is a matter solely between the Surety and Contractor. We assume no liability to you or to any third party by the issuance of this letter.

If we can provide any further assistance, please do not hesitate to call upon us.

Sincerely,

Rosenberg & Parker, Inc.

Harry C. Rosenberg
Chairman

HCR/jfb

cc: Mr. John Souder, Fidelity and Deposit Company of Maryland and Zurich American Insurance Company and Mr. Joe Crawford, Arch Insurance Company
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.

<table>
<thead>
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<th>Business Name</th>
<th>SCC Information (3.2.10.1)</th>
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## ATTACHMENT 3.2.10

### State Project No. 0659-053-262

### SCC and DPOR Information

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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>
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<th>DPOR Expiration Date</th>
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<td>Whitman Requardt and Associates, LLP</td>
<td>Brian Andrew Henschel</td>
<td>Lynchburg, VA</td>
<td>103 Carol Ct Forest, VA</td>
<td>Professional Engineer</td>
<td>0402035154</td>
<td>01/31/2015</td>
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<tr>
<td>Whitman Requardt and Associates, LLP</td>
<td>John Patrick Maddox</td>
<td>Richmond, VA</td>
<td>2825 Willbrook Drive Richmond, VA 23233</td>
<td>Professional Engineer</td>
<td>0402026613</td>
<td>01/31/2016</td>
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Please note: The SCC website will be unavailable Thursday, July 17, from 6 p.m. u
p.m. and Saturday, July 19, from 8 a.m. until noon for system maintenance. V
apologize for the inconvenience and appreciate your patience.

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BOARD FOR CONTRACTORS
CLASS A CONTRACTOR
*CLASSIFICATIONS* H/H

AMERICAN INFRASTRUCTURE-VA INC
300 CONCOURSE BLVD
SUITE 301
GLEN ALLEN, VA 23059

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

(POCKET CARD)
COMMONWEALTH OF VIRGINIA
CLASS A BOARD FOR CONTRACTORS
CONTRACTOR

*CLASSIFICATIONS* H/H
NUMBER: 2701009872 EXPIRES: 12-31-2014

AMERICAN INFRASTRUCTURE-VA INC
300 CONCOURSE BLVD
SUITE 301
GLEN ALLEN, VA 23059
Please note: The SCC website will be unavailable Thursday, July 17, from 6 p.m. u
p.m. and Saturday, July 19, from 8 a.m. until noon for system maintenance. V
apologize for the inconvenience and appreciate your patience.

CISM0180  CORPORATE DATA INQUIRY  07/15/14  11:40:06

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DATE OF CERTIFICATE: 07/14/2006 PERIOD OF DURATION:  INDUSTRY CODE: 00
STATE OF INCORPORATION: NY NEW YORK 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: NATIONAL REGISTERED AGENTS INC

STREET: 4701 COX ROAD, SUITE 285  AR RTN MAIL:

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Please note: The SCC website will be unavailable Thursday, July 17, from 6 p.m. u
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apologize for the inconvenience and appreciate your patience.

CISM0180 CORPORATE DATA INQUIRY

CORP ID: 0768895 - 5 STATUS: 00 ACTIVE STATUS DATE: 09/06/13
CORP NAME: DMY ENGINEERING CONSULTANTS INC.

DATE OF CERTIFICATE: 09/06/2013 PERIOD OF DURATION: 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: MONITOR DTE:
R/A NAME: WEIYI MA
STREET: 45662 TERMINAL DRIVE AR RTN MAIL:
SUITE 110
CITY: DULLES STATE: VA ZIP: 20166
R/A STATUS: 1 DIRECTOR EFF. DATE: 09/06/13 LOC: 153
ACCEPTED AR#: 000 00 0000 DATE: LOUDOUN COUNTY
CURRENT AR#: 000 00 0000 DATE: STATUS: ASSESSMENT INDICATOR: 0
YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES
14 130.00 130.00 10,000

(Screen Id:/Corp_Data_Inquiry)
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)
**CISM0180**  
**CORPORATE DATA INQUIRY**

<table>
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<tr>
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(Screen Id:/Corp_Data_Inquiry)
**DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION**
**COMMONWEALTH OF VIRGINIA**
9960 Mayland Dr., Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

**NUMBER**
0407005994

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

**PROFESSIONS:** ENG

**ENGINEERING & MATERIALS TECHNOLOGIES, INC**
7857 COPPERMINE DR
MANASSAS, VA 20109

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

---

**COUNTY OF PRINCE WILLIAM, VIRGINIA**

**2014 BUSINESS LICENSE**

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<th>BUSINESS NAME AND LOCATION</th>
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WHEN INQUIRING ABOUT THIS LICENSE, REFER TO THIS ACCOUNT NUMBER

99380093

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THIS LICENSE IS NON-TRANSFERABLE
Please note: The SCC website will be unavailable Thursday, July 17, from 6 p.m. until 9 p.m. and Saturday, July 19, from 8 a.m. until noon for system maintenance. We apologize for the inconvenience and appreciate your patience.

LLCM3220  LLC DATA INQUIRY
LLC ID:  S290560 - 4  STATUS:  00 ACTIVE  STATUS DATE:  04/27/09
LLC NAME:  H & B Surveying and Mapping, LLC
DATE OF FILING:  04/27/2009  PERIOD OF DURATION:  INDUSTRY CODE:  00
STATE OF FILING:  VA VIRGINIA  MERGER INDICATOR:
CONVERSION/DOMESTICATION INDICATOR:
PRINCIPAL OFFICE ADDRESS:
STREET:  612 HULL STREET STE 101B
CITY:  RICHMOND  STATE:  VA ZIP:  23224-0000
REGISTERED AGENT INFORMATION
R/A NAME:  TIMOTHY H GUARE
STREET:  TIMOTHY H GUARE PLC
6802 PARAGON PL STE 100  RTN MAIL:
CITY:  HENRICO  STATE:  VA ZIP:  23230-0000
R/A STATUS:  4 MEMBER OF VSB  EFF DATE:  07/02/09  LOC:  143  HENRICO COUNTY
YEAR FEES PENALTY INTEREST BALANCE
14  50.00

(Screen Id:/LLC_Data_Inquiry)
Please note: The SCC website will be unavailable Thursday, July 17, from 6 p.m. u p.m. and Saturday, July 19, from 8 a.m. until noon for system maintenance. V apologize for the inconvenience and appreciate your patience.

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(Screen Id://LLC_Data_Inquiry)
Please note: The SCC website will be unavailable Thursday, July 17, from 6 p.m. until 9 p.m. and Saturday, July 19, from 8 a.m. until noon for system maintenance. We apologize for the inconvenience and appreciate your patience.

LLC3220  LLC DATA INQUIRY
LLC ID: T020649  -  2  STATUS: 00  ACTIVE  STATUS DATE: 11/03/03
LLC NAME: Property Title & Escrow, LLC

STATE OF FILING: MD MARYLAND  MERGER INDICATOR:
CONVERSION/DOMESTICATION INDICATOR:
PRINCIPAL OFFICE ADDRESS
STREET: 2624 LORD BALTIMORE DR #E
CITY: BALTIMORE  STATE: MD  ZIP: 21244-0000
REGISTERED AGENT INFORMATION
R/A NAME: NATIONAL REGISTERED AGENTS INC
STREET: 4701 COX ROAD, SUITE 285  RTN MAIL:
CITY: GLEN ALLEN  STATE: VA  ZIP: 23060-0000
R/A STATUS: 5 ENTITY AUTHORIZ EFF DATE: 10/04/13 LOC: 143 HENRICO COUNTY
YEAR FEES PENALTY INTEREST BALANCE
14 50.00

(Screen Id:/LLC_Data_Inquiry)
STATE CORPORATION COMMISSION

Richmond, August 10, 2000

This is to Certify that the statement of registration of

Whitman, Requardt & Associates, LLP

a limited liability partnership registered under the laws of MARYLAND; was this day admitted to record in this office and that the partnership is registered to transact business in Virginia as a foreign Registered Limited Liability Partnership, subject to all laws applicable to the partnership and its business.

State Corporation Commission
Attest:

Joel H. Beck
Clerk of the Commission
CERTIFICATE OF FACT

I Certify the Following from the Records of the Commission:

On August 10, 2000, a statement of registration as a registered limited liability partnership was filed in this office by WHITMAN, REQUAROT & ASSOCIATES, LLP, a Maryland registered limited liability partnership.

As of the date below, this statement of registration is in effect.

Nothing more is hereby certified.

Signed and Sealed at Richmond on this Date:
June 17, 2013

Joel H. Peck, Clerk of the Commission
Dear Customer:

This is your receipt for $50.00 to cover the fee for filing the annual continuation report for the above-referenced registered limited liability partnership.

The annual continuation report was filed on May 28, 2013.

If you have any questions, please call (804) 371-9733 or toll-free in Virginia, 1-866-722-2551.

Sincerely,

Joel H. Peck
Clerk of the Commission
BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS AND LANDSCAPE ARCHITECTS
BUSINESS ENTITY BRANCH OFFICE REGISTRATION

PROFESSIONS: ENG

WHITMAN REQUARDT AND ASSOCIATES
3701 PENDER DRIVE
SUITE 450
FAIRFAX, VA 22030-6045

Nick A. Chrismer, Interim Director
BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS
AND LANDSCAPE ARCHITECTS
BUSINESS ENTITY BRANCH OFFICE REGISTRATION

PROFESSIONS: ENG

WHITMAN REQUARDT AND ASSOCIATES
9030 STONY POINT PKWY STE 220
RICHMOND, VA 23235

Gordon N. Dixon, Director
BRIAN ANDREW HENSCHEL
103 CAROL CT
FOREST, VA 24551
**ATTACHMENT 3.3.1**

**KEY PERSONNEL RESUME FORM**

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

- **Name & Title:** THOMAS HEIL, P.E.; DESIGN-BUILD PROJECT MANAGER

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

**Name of Firm with which you are now associated:** AMERICAN INFRASTRUCTURE

**Years experience:** With this Firm 2 Years With Other Firms 26 Years

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):

Mr. Heil is a registered PE in Virginia with over 28 years of progressive pre-construction / construction experience, including over eight years with DB and PPTA projects. He has over 26 years of design, design management and pre-construction experience with transportation infrastructure improvement projects and a pending DBIA certification.

**AI, DESIGN-BUILD MANAGER; DECEMBER 2012 - PRESENT:** Mr. Heil leads AI’s DB efforts from initiation of pursuits to construction close-out and is involved with pursuit and pre-construction activities for DB and PPTA projects throughout the company’s geographic footprint. Mr. Heil works closely with the designer of record, AI construction personnel, and estimators to ensure schedule commitment and budget compliance, design consistency with the project’s contractual/technical requirements, and quality assurance/control management through design and oversight of the QAM, CM and QC construction manager.

**RK&K, DIRECTOR, TRANSPORTATION; 2008 - 2012:** Mr. Heil managed RK&K’s Fairfax office which served the transportation needs of VDOT, NOVA counties, cities, and other local, state and federal client. His responsibilities included client coordination, design plan development, resolving design/project challenges, stakeholder coordination/outreach and ensuring all pre-construction work products met strict client quality standards and guidelines. Of note, he served as Project Manager and primary client liaison for the VDOT L&D and Traffic Engineering and FCDOT Planning and Design On-call. He and his team completed many VDOT NOVA projects including Route 7 TCL PE design requiring coordination with FHWA, NVRSA and Loudoun County/Leesburg and Vienna Metro Access PE Study requiring coordination with Fairfax Board of Supervisor, FCDOT, WMATA and local stakeholders.

**RK&K, ENVIRONMENTAL ASSOCIATE; 2002 - 2008:** Mr. Heil was responsible for company-wide environmental support, serving as the environmental subject matter expert and preparing/supporting NEPA documents (CE’s, EA’s and EIS’s) and environmental permitting efforts throughout the company. As an example, his team worked in support of DelDOT in the preparation/approval of the Wilmington Waterfront and Indian River Environmental Assessments, including negotiating Section 106 MOA and FHWA FONSI.

**POTOMAC CROSSING CONSULTANTS GEC (RK&K / PB / URS JV), ENVIRONMENTAL MANAGER; 1997 - 2002:** Mr. Heil was responsible for all natural resource aspects of reconstruction of the main bridge and four interchanges. His NEPA responsibilities included supporting FHWA in preparation of a draft and final SEIS, environmental summaries, CE’s and reevaluations. Mr. Heil led efforts associated with permitting, wetland/stream mitigation, Section 4(f) / 106 treatment and worked closely federal and state regulatory agencies in acquiring the Projects Section 404/401/10 permit.

**EXPERIENCE RELEVANT TO THE PROJECT**

- 28 Yrs. Experience, including working with VDOT since 1997
- Design Management and Quality Assurance Verifications
- DBPM for Walney and Rolling Road VDOT DB Projects
- Third Party Agency Coordination with Utilities, NVRSA and FCPA
- Key Staff on 4 Successfully Complete VA DB Projects
- Project Experience with FHWA / VDOT / VDEQ / Loudoun Co.

**Education:**

- **Name & Location of Institution(s)/Degree(s)/Year/Specialization:**
  - University of Maryland, College Park / MS / 1996 / Civil Engineering (Water Resources)
  - University of Maine, Orono / BS / 1986 / Civil Engineering

**Active Registration:**

- **Year First Registered/ Discipline/VA Registration #:**
  - Professional Engineer / 1994 / 044111
  - DBIA (In Progress) / 2014 / Pending

**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.)

---

*Note: Relevant projects are considered to be those that have been completed within the last 3 years and that are similar in scope and complexity to the current project.*
**WALNEY ROAD BRIDGE WIDENING AND WIDENING DB PROJECT;** Loudoun County, VA ($11.3M Construction)  
1. AI DBPM for the $11.3M Walney Road bridge replacement and roadway widening project which included the widening of Walney Road from 2 to 4 lanes; replacing and raising the existing Walney Road bridge; utility coordination and relocation with eight utility companies; oversight of a FCPA easement acquisition/vacation efforts; and coordinating a TMP plan that includes a four month closure of Walney Road.  
In conjunction with the DM and CM, he oversaw submission of the FI/RW Plans in June 2014 and expects RW acquisition authorization in early Aug. 2014 and AFC plans for construction in Nov. 2014. Advanced utility relocation will occur between Nov. 2014 and April 2015 with roadway construction beginning in Jan. 2015, Walney Road closure from May 1 to Sept. 1, 2015 and construction completion in Dec. 2015. He is the main point of contact with VDOT, focused on contract administration and design/construction quality management, stakeholder outreach/ coordination including County Supervisors, traveling public, local residents and utilities.

| Relevance to the Project          |  |  |
|-----------------------------------|  |  |
| DBPM on VDOT DB Project          | ✓ |  |
| Pre-construction Design / Utility / FCPA Coordination | ✓ |  |
| Contract Administration and Quality Management | ✓ |  |
| Schedule and Budget Management | ✓ |  |

2. **American Infrastructure; DB Project Manager**

**VDOT I-81 TRUCK CLIMBING LANES DESIGN-BUILD PROJECT;** Rockbridge County, VA ($74.5M Construction)  
1. Located along I-81 NB from mile marker 195.6 to 202.5 and included addition of a 6.9 miles of truck-climbing lane, replacement of three bridges and shoulder improvements. Environmental Manager working as a subconsultant to the lead design firm (AECOM), reporting to the Design Manager. As environmental issues were a schedule critical component, he developed risk mitigation strategies with both the DBPM / CM. He was responsible for all project related permitting efforts including Agency coordination through VDOT’s IACM, Section 404/401 Joint Permit Application, coordination and approval (12 months of NTP), SWPP and VSMP/ESC approval. He prepared the project’s environmental compliance plan and during construction he responded to CM information requests, completed independent compliance inspections and provided the QAM with environmental support.

| Relevance to the Project          |  |  |
|-----------------------------------|  |  |
| VDOT DB Project                  | ✓ |  |
| Water Quality Permitting          | ✓ |  |
| Construction Environmental Compliance | ✓ |  |

2. **RK&K; D/B Environmental Manager**

**COMMONWEALTH CONNECTOR (US 460 PPTA IMPROVEMENTS);** Petersburg to Suffolk, VA ($1.3B Construction)  
1. Environmental manager for the pre-construction of approx. 55 miles of new, four lane divided highway that extends from I-295 east to Route 58 and includes terminal interchanges and seven intermediate interchanges while traversing six major named swamps. Development of natural systems field data including Waters of the US (including wetlands) delineations and coordination with USACE, submission of an expedited Joint Permit Application, study and analysis of fifty inundated wetlands areas to minimize wetland impacts and determine practicality of crossing method (bridge, hydraulic connections or conventional fills) and comprehensive Compensatory Mitigation Plan to offset unavoidable impacts to wetlands. The project is currently on hold pending completion of a Supplemental EIS and associated environmental decision by FHWA/USACE/VDOT.

| Relevance to the Project          |  |  |
|-----------------------------------|  |  |
| VDOT PPTA/DB Project             | ✓ |  |
| Risk Identification / Mitigation  | ✓ |  |
| Water quality permitting and compliance | ✓ |  |

2. **US460MP (An AI Joint Venture); D/B Environmental Manager**
3. January 2013 - Present

**ROUTE 7 WB TCL PE AND DB DOCUMENT PREPARATION;** Loudoun County, VA ($32M Construction)  
1. 2.57 mile Route 7 WB TCL improvements extending from the Market Street to Route 9 interchanges, including improvements/realignment of the WO&D Trail through the Route 9 interchange, interchange bridge reconstruction, frontage roads and Route 7 cross-over design and modifications and roundabout analysis and design. As project manager, he managed the design through location approval and FI/RW plans, providing design concepts/coordination with NVRPA for the re-aligned WO&D Trail through the Route 9 Interchange and assisted VDOT with outreach to local HOAs/ Loudoun County / Leesburg. Following location approval, he and his team prepared the RFQ Bridging Documents in support of VDOT. The resulting DB project was bid and awarded in October 2013 for $27.9M.

2. **RK&K; Project Manager (Design)**

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

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. – Not Applicable
**ATTACHMENT 3.3.1**

**KEY PERSONNEL RESUME FORM**

<table>
<thead>
<tr>
<th>Brief Resume of Key Personnel anticipated for the Project.</th>
</tr>
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<tbody>
<tr>
<td>a. Name &amp; Title:</td>
</tr>
<tr>
<td><strong>BRIAN A. HENSCHEL, P.E., CCM, PMP – ASSOCIATE – CM SERVICES</strong></td>
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<tr>
<td>b. Project Assignment:</td>
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<td><strong>QUALITY ASSURANCE MANAGER</strong></td>
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<td>c. Name of Firm with which you are now associated:</td>
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<tr>
<td><strong>WHITMAN, REQUARDT &amp; ASSOCIATES, LLP</strong></td>
</tr>
<tr>
<td>d. Years of Experience: With this Firm <em>4</em> Years With Other Firms <em>15</em> Years</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><strong>WHITMAN, REQUARDT &amp; ASSOCIATES, ASSOCIATE – CM SERVICES; AUGUST 2010 – PRESENT:</strong></td>
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<tr>
<td>Mr. Henschel is an Associate for Construction Management Services, serving roles of Quality Assurance Manager, Quality Control Manager, Project Manager, Responsible Engineer, and Engineering Support on transportation &amp; utility contracts in Virginia. He serves as a QAM; writes and implements QA/QC Plans on design-build and PPTA projects; and manages QA inspection/engineering staff assigned to VDOT &amp; municipality/locality design-build, design-bid-build and related construction management contracts, providing QA inspection and monitoring Contractor’s QC program. He provides scheduling, constructability and specification interpretation support to VDOT and other clients, manages and supports construction projects to ensure compliance with contract requirements including materials testing and sampling, attends progress meetings, performs regular site visits to monitor progress and recommends field changes, resolves disputes, performs cost and schedule analysis for work orders and changes. He provides pay application/estimate review and certification, makes staffing decisions, and inspects work for compliance with plans and specifications.</td>
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<tr>
<td><strong>VIRGINIA DEPARTMENT OF TRANSPORTATION, DESIGN-BUILD PROJECT MANAGER / AREA CONSTRUCTION ENGINEER / PROJECT CONTROLS ENGINEER; APRIL 2004 – AUGUST 2010:</strong></td>
</tr>
<tr>
<td>Design-Build Project Manager, Responsible Charge Engineer, and Project Controls Engineer for Lynchburg District projects. As Design-Build Project Manager, he managed all phases of the contract for five VDOT Design-Build contracts. Mr. Henschel assisted in writing technical specifications for RFP; reviewed and led the QA/QC Plan review; administered the contract and all specifications; assigned and managed processes and testing frequencies of IA/IV program; and oversaw reporting and sampling. He also reviewed and approved pay applications, and reviewed and signed off on completed plans. As ACE, he completed over 90 projects worth over $200 million, exceeding on-time, on-budget and CQIP goals; ensured compliance with plans and specs; assigned staffing on project; ensured QA testing and inspection met quality and specification requirements; monitored contractor’s QC program; and coordinated with IA/IV testing and sampling. Mr. Henschel analyzed and approved work orders; reviewed and responded to NOI’s and claims; and coordinated with all project stakeholders. As Project Controls Engineer, he performed constructability and bidability reviews, developed CEI budgets, and performed CTDs and CPPM schedules for over 100 projects.</td>
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<tr>
<td><strong>MCDONOUGH BOLYARD PECK, SENIOR ENG. / PROJECT CONTROLS / PROJECT INSPECTOR; MAY 1994 – APRIL 2004:</strong></td>
</tr>
<tr>
<td>Office Engineer/Claims Analyst/Project Inspector for VDOT and other public clients. Mr. Henschel assigned inspection activities, performed project documentation, analyzed worked orders, coordinated with FHWA, led partnering meetings, and reviewed/approved schedules. He performed materials testing and managed QA materials testing and reporting, performed constructability reviews, analyzed NOI’s/claims, provided detailed reports for use in negotiations/litigation.</td>
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<td><strong>SUMMARY OF RELEVANT EXPERIENCE</strong></td>
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<td>- 19 Years of Experience on Roadway, Bridge, and Utility Projects</td>
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<td>- 16 Years VDOT Quality Management</td>
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<td>- 8 VDOT D-B Projects / 11 Total Experience</td>
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<td>e. Education: Name &amp; Location of Institution(s)/Degree(s)/Year/Specialization:</td>
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<tr>
<td>Certified Construction Manager (CCM) / 2010</td>
</tr>
<tr>
<td>g. Document the extent and depth of your experience and qualifications relevant to the Project.</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>
</tbody>
</table>
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.

ROUTE 636 RELOCATION PPTA PROJECT; Augusta County, VA ($13M Construction)
1. Mr. Henschel is the Quality Assurance Manager responsible for ensuring project quality for Augusta County, including 200,000 CY of grading and a bridge over the Buckingham Branch Railroad. The project is being delivered according to VDOT Design–Build requirements and Mr. Henschel is responsible for providing all QA functions for construction, including the developing the QA/QC, documentation/reporting, material sampling/testing, inspection and approval of the work, issuing non-conformance reports, certification of payment applications and ensuring the project is built according to plans, specifications and all VDOT requirements. Mr. Henschel is responsible for the project Materials Book, including issuing LT certifications and VDOT review.

2. Whitman, Requardt & Associates; Quality Assurance Manager

Relevance to the Project
✓ Elevated MSE retaining walls and bridge
✓ Full VDOT Specs
✓ MOT with multiple phases
✓ Coordination with utility owners

GEORGE MASON UNIVERSITY CROSS CAMPUS CONNECTOR; Fairfax, VA ($14M Construction)
1. Mr. Henschel is the Quality Assurance Manager responsible for ensuring project quality for work within VDOT Right-of-Way, the intersection of Campus Drive and Braddock Road, and the new Route 123 Bridges over Campus Drive. The project is delivered according to VDOT Design–Build requirements and Mr. Henschel is responsible for providing all QA functions for construction, including the developing the QA/QC Manual, documentation/reporting, material sampling/testing, inspection and approval of the work, issuing non-compliance reports for defective and non-conforming work, and ensuring the project is built in accordance with the plans and specifications and all VDOT requirements.

2. Whitman, Requardt & Associates; Quality Assurance Manager
3. April 2013 – Estimated December 2014

Relevance to the Project
✓ Elevated MSE retaining walls and bridge
✓ MOT with multiple phases
✓ Coordination with utility owners
✓ Local Project to Belmont
✓ VDOT DB

WALNEY ROAD BRIDGE REPLACEMENT & ROAD WIDENING; Fairfax County, VA ($11.2M Construction)
1. Mr. Henschel is the Quality Control Manager responsible for overseeing quality control functions on the 0.6 mile VDOT Design–Build project to replace the existing two-lane bridge on Walney Road over Flatlick Branch with a four-lane bridge, widen Walney Road to a four-lane section, and provide a bicycle lane and shared use path. The project is delivered by VDOT Design–Build requirements and Mr. Henschel is responsible for providing all QC functions for construction, including developing the QC Plan for the QA/QC Manual, material sampling/testing, documentation/reporting, QC inspection of the work, issuing non-compliance reports from QC inspections, assigning QC inspectors and ensuring construction is according to plans, specs and VDOT requirements.

2. Whitman, Requardt & Associates; Quality Control Manager

Relevance to the Project
✓ AI/WR&A Team VDOT DB Project
✓ Relocation of transmission lines
✓ Extensive temporary shoring/support system
✓ MSE retaining wall abutments

ROUTE 29 NBL / TYE RIVER BRIDGE REPLACEMENT – Lynchburg District ($9M Construction)
1. VDOT Design-Build Project Manager managing all phases of the Contract and $9M budget. Assisted in Technical Specification writing, developed risk matrix and participated in procurement phase activities. Facilitated and led kick-off meetings and administered the contract. Reviewed and approved QA/QC Plan and all subsequent updates, reviewed all witness/hold points, and approved QA/QC testing and sampling frequency. Oversaw scope validation period, and reviewed/responded to claims of additional scope. Reviewed, approved and signed plan submittals after design and constructability review. Managed IA/IV inspections and testing frequency & reporting. Ensured contract compliance. Reviewed change order requests and approved payments. Facilitated project meetings.

2. Virginia Department of Transportation; Design-Build Project Manager
3. June 2009 – August 2010

Relevance to the Project
✓ VDOT DB Project
✓ Experience with AI
✓ MOT with multiple phases

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. – Not Applicable
**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>a. Name &amp; Title: <strong>John Maddox, P.E. – Senior Vice President</strong></td>
</tr>
<tr>
<td>b. Project Assignment: <strong>Design Manager</strong></td>
</tr>
<tr>
<td>c. Name of Firm with which you are now associated: <strong>Whitman, Requardt &amp; Associates, LLP</strong></td>
</tr>
<tr>
<td>d. Years experience: With this Firm <strong>19 Years</strong> With Other Firms <strong>10 Years</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><strong>Whitman, Requardt &amp; Associates, Associate / VP / Senior VP; June 1995 – Present:</strong></td>
</tr>
<tr>
<td>Mr. Maddox has served as a <strong>Project Manager</strong> for major VDOT design projects continuously since August 1997 and recently as the <strong>Design Manager</strong> on two VDOT Design-Build projects including one in the VDOT NOVA District. He routinely manages the design of major transportation projects ranging in construction value from $30 million to $100 million. He specializes in the design of complex projects requiring a multi-discipline design team. As a Design Manager, he is responsible for the complete design efforts for the projects including roadway, bridge, retaining walls, H&amp;H, traffic engineering, utility relocation, environmental compliance, right-of-way coordination and quality assurance.</td>
</tr>
<tr>
<td><strong>SUMMARY OF RELEVANT EXPERIENCE</strong></td>
</tr>
<tr>
<td>▪ 29 Years of Design Experience, with VDOT NOVA since 2002</td>
</tr>
<tr>
<td>▪ 4 Design-Build Projects</td>
</tr>
<tr>
<td>▪ Over 20 Years as DM</td>
</tr>
<tr>
<td>▪ DM for 2 VDOT DB Projects</td>
</tr>
<tr>
<td>▪ Current VDOT Projects of Similar Size</td>
</tr>
<tr>
<td>▪ Current DM of Multidiscipline Teams</td>
</tr>
<tr>
<td>e. Education: Name &amp; Location of Institution(s)/Degree(s)/Year/Specialization:</td>
</tr>
<tr>
<td>West Virginia Institute of Technology (is now a division of West Virginia University) – Montgomery, West Virginia/B.S./1985/Civil Engineering</td>
</tr>
<tr>
<td>f. Active Registration: Year First Registered/ Discipline/VA Registration #:</td>
</tr>
<tr>
<td>Professional Engineer/Virginia/1996/#026613</td>
</tr>
<tr>
<td>g. Document the extent and depth of your experience and qualifications relevant to the Project.</td>
</tr>
<tr>
<td>1. Note your specific responsibilities and authorities for each project, not those of the firm.</td>
</tr>
<tr>
<td>2. Note whether experience is with current firm or with other firm.</td>
</tr>
<tr>
<td>3. Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</td>
</tr>
<tr>
<td><em><em>(List at least three (3), but no more than five (5) relevant projects</em> for which you have performed a similar function.)</em>*</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><strong>VDOT Fairfax County Parkway (FCP) Widening and Interchange at Fair Lakes Parkway; Fairfax County, VA ($44M Construction)</strong></td>
</tr>
<tr>
<td>1. Mr. Maddox was responsible for the design of this project, which widened FCP from four to six lanes for 2.3 miles, and provided an interchange at Fair Lakes Parkway and Monument Drive. The interchange included two new bridges and over 43,000 sf of retaining walls. Mr. Maddox provided oversight and coordination for all design elements of the project including roadway, hydraulic, SWM, structural, utility relocation, traffic engineering, environmental permits, traffic forecast and analysis, public involvement and Quality Assurance. Mr. Maddox provided a leadership role in stakeholder outreach to the existing Homeowners’ Associations, Fair Lakes League and the Fairfax County Park Authority to minimize right-of-way impacts of the project. During construction, he attended progress and partnering meetings with the construction team, shop drawing review and technical support.</td>
</tr>
<tr>
<td><strong>Relevance to the Project</strong></td>
</tr>
<tr>
<td>✓ Raised transmission line</td>
</tr>
<tr>
<td>✓ Complex TMP</td>
</tr>
<tr>
<td>✓ MSE walls at bridges</td>
</tr>
<tr>
<td>✓ Bridge design</td>
</tr>
<tr>
<td>✓ Utility design</td>
</tr>
<tr>
<td>2. <strong>Whitman, Requardt &amp; Associates; Design Manager</strong></td>
</tr>
<tr>
<td>3. <strong>October 2001 – October 2013</strong></td>
</tr>
</tbody>
</table>
VDOT ROUTE 123 INTERCHANGE AT ROUTE 1; Prince William County, VA ($70M Construction)
1. Mr. Maddox is responsible for this design which includes a tight urban interchange at Route 123 and Route 1 and the widening from four to six lanes of 1.7 miles of Route 1 and Route 123 with sidewalks and shared use path. The project requires three new bridges; Route 123 over Route 1, Route 123/Belmont Bay Drive over CSXT, and Route 1 over Marumsco Creek. Mr. Maddox provides oversight and coordination for all elements of the design including surveys, roadway, hydraulics, SWM, structural, sound barriers, geotechnical, traffic engineering, utility design and coordination, ITS, TMP, traffic forecasting and analysis, permitting, public involvement and Quality Assurance

2. Whitman, Requardt & Associates; Design Manager

Relevance to the Project
✓ MSE retaining walls
✓ MOT with multiple phases of construction
✓ Coordination and design of utilities

WALNEY ROAD BRIDGE REPLACEMENT AND ROAD WIDENING; Fairfax County, VA ($11.2M Construction)
1. Mr. Maddox is responsible for WR&A’s design and construction inspection roles for this widening project and reconstruction of 0.6 miles of Walney Road to a four lane curb and gutter section with a sidewalk on the west side and a shared use path on the east side. The project includes bike lanes along the entire length of the project. The bridge over Flatlick Branch is located in the Fairfax County Park Authority Stream Valley Park. Mr. Maddox is providing oversight for all design elements of the project including roadway, hydraulic, SWM, bridge, utility relocation and coordination, traffic engineering, lighting, environmental permits, public involvement, quality assurance and coordination during construction.

2. Whitman, Requardt & Associates; Design Manager

Relevance to the Project
✓ VDOT DB Project
✓ AI/WR&A Team
✓ 4-lane curb and gutter with sidewalk and shared-use path
✓ Coordination with Park Authority
✓ Extensive utility coordination
✓ AI/WR&A Team for VDOT DB

FALL HILL AVENUE WIDENING AND MARY WASHINGTON BOULEVARD EXTENSION; City of Fredericksburg, VA ($30.8M Construction)
1. Mr. Maddox is responsible for WR&A’s design and construction inspection roles for this widening and reconstruction project of 2.2 miles of Fall Hill Avenue (FHA) and Mary Washington Blvd (MWB) including a roundabout at the intersection with FHA and MWB. The project includes a five span 419 foot long bridge over I-95 and future CD-lanes. The proposed roadway is primarily a four lane curb and gutter section with a sidewalk on the south side and a shared use path on the north side. The project has significant 4(f) coordination requirements and includes the relocation and reconstruction of the Snowden Park including baseball fields and basketball courts. Mr. Maddox is providing oversight for all design elements of the project including roadway, hydraulic, SWM, bridge, retaining walls, sound barriers, utility relocation and coordination, traffic engineering, lighting, environmental coordination of 4(f) properties, permits, public involvement, right-of-way acquisition, park design, quality assurance and coordination during construction.

2. Whitman, Requardt & Associates; Design Manager

Relevance to the Project
✓ VDOT DB Project
✓ Relocation of transmission lines
✓ Extensive temporary shoring/support system
✓ MSE retaining wall abutments
✓ 4-lane curb and gutter with sidewalk and shared-use path
✓ VDOT DB

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
ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title: **IVAN SAER, P.E., DBIA; CONSTRUCTION MANAGER**

b. Project Assignment: **CONSTRUCTION MANAGER**

c. Name of Firm with which you are now associated: **AMERICAN INFRASTRUCTURE**

d. Years experience: With this Firm 12 Years With Other Firms 6 Years

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):

**AMERICAN INFRASTRUCTURE, CONSTRUCTION MANAGER; 2006 - PRESENT:** Mr. Saer is responsible for managing all aspects of his projects including pre-construction planning and scheduling work activities; construction engineering; submittals; pay estimates; coordination with owner, subcontractors, suppliers and other stakeholders; customer satisfaction; and safety for all phases of construction. As an AI CM, he ensures compliance with all elements of applicable contracts. He also monitors the schedule and makes appropriate documentation of changes before distribution to others to ensure construction employees will maximize production. He oversees construction quality control and ensures all material used and work performed meets or exceeds contract requirements and AFC plans and specifications. He promotes safety and monitors costs on a daily basis. Mr. Saer also encourages, promotes teaming, morale, employee development, and retention with direct reports and construction crews.

**AMERICAN INFRASTRUCTURE, PROJECT ENGINEER; 2002 – 2006:** Mr. Saer pre-planned each activity of construction to ensure a smooth flow of operation and reduce conflicts within the activities which increased production and maintained schedules. He managed the submittal process including all project correspondence and scope/contract administration. He tracked production quantities to analyze job costs for successful execution of the projects within budget and scheduled the job to ensure timely material procurement/subcontractor management to minimize schedule risks.

**OBAYASHI / MERCO INC. – JV, FIELD ENGINEER; 2001-2001:** Mr. Saer was responsible for interpreting pre-construction design drawings/specifications for a tunnel construction. He coordinated all construction activities and supervised expediting process of materials for construction. Mr. Saer performed quantity take-offs, tracked project costs, and monitored costs on a daily basis. Mr. Saer also encourages, promotes teaming, morale, employee development, and retention with direct reports and construction crews.

**EXXON MOBIL, FIELD ENGINEER; 1996 - 2000:** Mr. Saer supervised building office/infrastructure construction, evaluating schedule, cost control, performed quantity take-offs and reviewed plans/specifications and scope of work.

**SUMMARY OF RELEVANT EXPERIENCE**

- 17 Years Construction Experience with 12 Years at AI-VA
- 5 Years of VDOT Specification Project Experience ($70M value)
- Current CM on Rolling Road VDOT NOVA DB project
- Complex MOT / Utility Relocations under Traffic
- Construction Quality Control Management and Oversight
- Complex Pedestrian / Multi-modal Project Expertise

**e. Education:**

- **Pontificia Universidad Javeriana,** Bogota, Colombia / Bachelor of Science / 1995 / Civil Engineering
- **Virginia Polytechnic Institute and State University,** Blacksburg, Virginia / Masters of Science / 2002 / CM

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

- 2011/ Professional Engineer/Virginia # 046577 and DBIA / 2014 /
- Virginia DCR RLD Certification/#40428 and VDOT ESCC Certification/#3-00141

**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.**

**MULLIGAN ROAD IMPROVEMENTS; Fairfax County, VA ($13.5M Construction)**

1. Construction of 1.62 miles of new 4-lane commuter connector road through Fort Belvoir between Richmond Highway and Telegraph Road which alleviates congestion on Telegraph Road and improves access to Fort Belvoir. Scope included 250,000 CY of mass excavation; installation of over 12,000 lf of drainage systems including several types of U-drain systems from spring boxes to UD-4; two steel continuous steel beam bridges over 150 lf long requiring over 600,000 lbs of steel; 15,000 lf of 12" concrete pile; and a major sewer main bypass for the relocation of existing sanitary sewer lines.

**Relevance to the Project**

- NOVA Project with VDOT Specifications
- Complex Utility / Bridge / Roadway Construction
- Federal Oversight Project
- Independent Construction QC/QA Management
Maintained schedule through difficult winter conditions, minimized impact to 12 adjacent environmental conservation areas, completed the project with an exemplary safety record and oversaw a strict USACE QA/QC protocol through management and oversight of an independent QA/QC Team (CTI).

2. American Infrastructure; Construction Manager  

FORT BELVOIR COMMUNITY HOSPITAL PROJECT; Fairfax County, VA ($53.9M Construction)  

1. Construction manager for the site work portion of this $920 million state of the art healthcare facility. On-site full time and was responsible for all site work including bulk excavation; 39,800 SF of soldier pile and lagging; 17,796 SF of retaining walls; 24,700 LF of utility line; 6 precast concrete vaults; 7,000 SY of heavy duty concrete; and 54,500 SY of asphalt paving. Coordinated with stakeholders to increase constructability and resolve design oversights while consistently performing high quality work. Through continuous coordination with the GC and USACE, all schedule milestones were met and construction was completed within budget. **ADD ROADWORK TO DESCRIPTION.**


SAINTSBURY DRIVE AND VIENNA METRO IMPROVEMENTS PROJECT; Vienna, VA ($20M Construction)  

1. Oversaw construction operations of 30,500 SY of demolition; 259,000 CY of mass excavation; three retaining walls; 10,300 LF of utility line; 24,000 SY of heavy duty concrete; and 20,255 SY of asphalt paving. The project included 33 phases of MOT, an aggressive schedule and extensive coordination with subcontractors and WMATA. The roadway was designed and constructed to VDOT specifications and substantial construction was completed within one year, including Sainsbury Drive. Pulte Homes Corporation (Owner) returned perfect scores on their customer satisfaction survey highlighting the Projects success and the role of Mr. Saer.


ROLLING ROAD / FRANCONIA SPRINGFIELD PARKWAY INTERCHANGE IMPROVEMENTS; Fairfax Co. VA, ($9.8M)  

1. CM working closely with Mr. Heil (DBPM) in the oversight and management of pre-construction activities for this VDOT DB project. Working with the DM to ensure the design meets the contractual/technical requirements and is consistent with construction means/methods. Prior to the project’s VDOT FI submission, he completed a thorough constructability/ construction risk assessment to ensure that the design meets the contract requirements, schedule/cost constraints and safety requirements. Construction will begin in Jan. 2015, during which Mr. Saer will be on-site full time managing all construction activities and ensuring that all materials/work meet contract requirements and AFC plans/specifications.

2. American Infrastructure; Construction Manager  

2. American Infrastructure; Construction Manager  

2. American Infrastructure; Construction Manager  


WALNEY ROAD BRIDGE WIDENING AND WIDENING DB PROJECT; Loudoun County, VA ($11.3M Construction)  

1. Working closely with our DBPM (Tom Heil) to provide pre-construction support. Project involved the widening of Walney Road from 2 to 4-lanes; replacing and raising the existing Walney Road bridge; utility coordination and relocation with 8 utility companies; oversight of a FCPA easement acquisition/vacation efforts; and coordinating a TMP/MOT plan. In conjunction with the DBPM and DM, provided oversight and management of the FI/RW Plan preparation effort and completed QA verification, constructability reviews and schedule/budget comparisons against the base bid prior to plan submissions. Working with field managers to plan utility relocation and roadway construction.

2. American Infrastructure; Pre-Construction Advisor  

2. American Infrastructure; Pre-Construction Advisor  

2. American Infrastructure; Pre-Construction Advisor  


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. Saer is available and committed to be on-site full-time for the duration of construction of the Route 659 (Belmont Ridge Road) Widening Project. With NTP anticipated in March 2015, construction is anticipated to being in May 2016. Mr. Saer’s current project assignments, roles, and completion dates of each assignment are as follows:

- Potomac Yard Bridge Demolition ($3M) – CM – Completion August 2014
- ACC7 Data Center Site Development ($12M) – CM – Completion September 2014
- Arcola Center Site Development ($2M) – CM – Completion Nov 2014
- Brightview Gallows Rd Site Development ($1M) – CM – Completion February 2015
- Stone Spring Hospital Site Development ($7M) – CM – June 2015
- Walney Road Bridge Replacement DB Project ($11M) – Pre-Construction Advisor – Completion May 2015
- Rolling Road Interchange Improvements DB Project ($9M) – CM – Completion May 2016
Appendix 3.4.1
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. Contract Completion Date (Original)</th>
<th>e. 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>Name: MIDDLE GROUND BOULEVARD EXTENSION DESIGN-BUILD PROJECT</td>
<td>Name: RDA</td>
<td>Phone: 757-253-5367 Project Manager: Thomas Druhot Phone: 757-592-6068 Email: <a href="mailto:Thomas.Druhot@VDOT.virginia.gov">Thomas.Druhot@VDOT.virginia.gov</a></td>
<td>12/2014</td>
<td>12/2014</td>
<td>$32,653</td>
<td>$39,501</td>
</tr>
<tr>
<td>Location: Newport News, VA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

h. Narrative describing the Work Performed by the Firm identified as the Lead Contractor for this procurement. If the Offeror chooses to submit work completed by an affiliated or subsidiary company of the Lead Contractor, identify the full legal name of the affiliate or subsidiary and the role they will have on this Project, so the relevancy of that work can be considered accordingly.

### VERIFIABLE EVIDENCE OF GOOD PERFORMANCE

- There have been zero recordable safety incidents for over 53,000 construction man hours since construction commenced in August 2013.
- Accelerated design and early utility relocations have maintained the original project completion date with additional scope of work.
- Quality improvements to the design that reduce future maintenance include using concrete girders in place of structural steel and changing the bridge structure from three-span to two-span.
- Traffic impacts to the public were minimized by utilizing soil stabilization for unsuitable soils in lieu of waste which would have created additional truck traffic.

### PROJECT DESCRIPTION

This project extends Middle Ground Boulevard from its current termini at Route 143 (Jefferson Avenue) approximately 1.2 miles to Route 60. AI is responsible for overall design and construction including 1.2 miles of primarily new mainline four-lane divided highway, widening of Jefferson Avenue and Warwick Boulevard to provide turn lanes to the new roadway, and intersection improvements. Additional scope of work includes construction of a bridge over CSXT Railroad; utility coordination and relocations, installation of a mainline shared-use path, and ROW acquisition of 72 parcels with 56 relocations required.

Following award of the project, AI worked with the City of Newport News and Hampton Roads Sanitation District (HRSD) to add a betterment to the project that provides the City of Newport News with a system that will accommodate future growth in the area. Early coordination of this additional work, as well as early utility locations required, has allowed the AI Team to maintain the original project completion date.

The project team is maintaining access to private and commercial properties during reconstruct of entrances through continuous coordination and a strong public communication plan. Pedestrian access is being maintained at the work sites at Jefferson Avenue, Nat Turner Boulevard, Nettles Drive, and Warwick Boulevard. The AI Team developed an alternative TMP which implemented a short detour to keep two lanes of traffic open and eliminate the use of flagmen in three locations. This change has minimized safety risks and kept traffic moving.

### LESSONS LEARNED FOR THE PROJECT

- **Utility Coordination** – Early coordination with utility owners has allowed AI to eliminate impacts to AT&T, Newport News Public Schools, and Sprint, and to minimize impacts to other affected utilities. Utilities affected by this project include Dominion Virginia Power, Newport News Water Works, HRSD, Virginia Natural Gas, City lighting, Cox Communications, Level 3 Communications, and Verizon fiber optic and copper wire telephone.

- **Maintenance of Traffic** – A detailed, project-specific community relations plan was developed to communicate with the traveling public and local stakeholders throughout design and construction of the project. AI created an organized task force made up of key players from the design and construction teams and project stakeholders.

- **Partnering with Stakeholders** – Formal partnering with VDOT, the City of Newport News, and other affected stakeholders has allowed the team to quickly identify and resolve potential issues. In addition to VDOT oversight, the City is inspecting and granting approvals on traffic controls, the pump station, and water and sewer facilities. Partnering with all affected parties has enabled AI to provide a successful project for all stakeholders, including the City and community through the HRSD betterments. This proactive approach has helped maintain an aggressive schedule and anticipates the project completing construction ahead of the contractual completion date.

*For multiple phase projects, only single phase of construction (or single contract) will be considered as a Project. If additional phases are shown under the same Work History Form, only the first phase (or contract) listed will be evaluated.*
ATTACHMENT 3.4.1(a)
LEAD CONTRACTOR - WORK HISTORY FORM
(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location
b. Name of the prime design consulting firm responsible for the overall project design.
c. Contact information of the Client or Owner and their Project Manager who can verify Firm’s responsibilities.
d. Contract Completion Date (Original)
e. Contract Completion Date (Actual or Estimated)
f. Contract Value (in thousands)
g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement. (in thousands)

<table>
<thead>
<tr>
<th>Name: ROUTE 60 AND GERMAN SCHOOL ROAD PROJECT</th>
<th>Name: AECOM</th>
<th>Name of Client / Owner: VDOT</th>
<th>Phone: 804-524-6433</th>
<th>Project Manager: Shane Mann</th>
<th>Phone: 804-524-6433</th>
<th>Email: <a href="mailto:shane.mann@vdot.virginia.gov">shane.mann@vdot.virginia.gov</a></th>
<th>Original Contract Value</th>
<th>Final or Estimated Contract Value</th>
<th>Increase due to extensive design changes, utility conflicts, and quantity overruns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location: Richmond, VA</td>
<td>08/2013</td>
<td>12/2012</td>
<td>$35,412</td>
<td>$45,584</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

h. Narrative describing the Work Performed by the Firm identified as the Lead Contractor for this procurement. If the Offeror chooses to submit work completed by an affiliated or subsidiary company of the Lead Contractor, identify the full legal name of the affiliate or subsidiary and the role they will have on this Project, so the relevancy of that work can be considered accordingly.

VERIFIABLE EVIDENCE OF GOOD PERFORMANCE

- Completed eight months ahead of schedule with additional scope of work;
- Minimized the effects of extensive design changes by evaluating each redesign for cost effectiveness;
- Rated 100% on VDOT’s Contractor Employee Safety rating;
- Scored 95% or better on all VDOT Contractor Performance Evaluations.

PROJECT DESCRIPTION

The Route 60 project consisted of a total of 4.5 miles of roadway reconstruction and widening on Midlothian Turnpike (six-lane divided highway) and German School Road. The project scope included curb and gutter; concrete flatwork; paving; lighting; landscaping; and improvements to gas, water, sanitary sewer, and storm sewer.

A major error was found in the design survey on Route 60 and this required significant redesign and collaborative solutions from VDOT’s design engineer and AI’s construction team. An outside survey company was utilized to resurvey the entire job to locate grade issues throughout the project...To correct this problem, AI, VDOT, and AECOM spent weeks using the information gathered to formulate the final solution of profile milling to even out the grades on Route 60 and ensure the drainage already installed would work properly when the final pavement was placed. The significant redesign is evidenced by the 120 RFI’s and 60 change orders issued to resolve the error.

AI was responsible for MOT on the project with a focus on keeping pedestrians safe in the work zone. AI utilized directive signage, as well as ramps, and cones with delineator rods to funnel pedestrian traffic away from the work. This provided safe access to residents and other pedestrian traffic.

"American Infrastructure proved to be an excellent partner working with the agency through a host of issues on the Route 60/German School project in the City of Richmond and delivered the job ahead of the scheduled completion date." - Harold Dyson, VDOT, January 2013

LESSONS LEARNED FOR THE PROJECT

- Safety and Public Impacts - To safely perform the work in accordance with the MOT Plan, crews had to complete the majority of work on Route 60 during the night time hours. However, the work on German School Road had to be performed during the daytime hours due to a large number of residential homes. This dual-shift approach minimized disruption to the traffic on Route 60 during the day, minimized safety risks to AI crews and the public, and avoided impacting local residents on German School Road with night-time construction.
- Utility Coordination – Utility conflicts were identified proactively before they became critical to the schedule. By identifying issues in the planning stages, construction progress was not halted by conflicts. In addition, the project team had alternative work operations planned and prepared. When unexpected conflicts were encountered, AI crews moved quickly to another work operation without delaying the schedule or jeopardizing safety.
- Formal Partnering – Through formal partnering on this project, a good relationship between VDOT and AI’s construction team was developed and maintained. The significant change negotiations were successful because of the teaming relationships created and the approach by all parties to put the success of the project above personal agendas.

*For multiple phase projects, only single phase of construction (or single contract) will be considered as a Project. If additional phases are shown under the same Work History Form, only the first phase (or contract) listed will be evaluated.
**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. Contract Completion Date (Original)</th>
<th>e. 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>
</table>
| SAINSIBURY DRIVE AND VIENNA METRO IMPROVEMENTS | Wendel Duchscherer Architects and Engineers | Name of Client/Owner: **Pulte Homes Corporation**
Phone: 703-359-7495
Project Manager: Jeffrey Oetjen, PE
Phone: 703-801-5848
Email: jeff.edelman@pulte.com | 11/2012 | 02/2013 | $15,933 | $19,200 |

h. Narrative describing the Work Performed by the Firm identified as the Lead Contractor for this procurement. If the Offeror chooses to submit work completed by an affiliated or subsidiary company of the Lead Contractor, identify the full legal name of the affiliate or subsidiary and the role they will have on this Project, so the relevancy of that work can be considered accordingly.

**VERIFIABLE EVIDENCE OF GOOD PERFORMANCE**

- There were zero recordable traffic incidents within the work zone.
- Construction was completed within budget and on schedule including the additional scope of work added by the owner.
- AI was given a rating of outstanding for the quality of communication, safety, and quality of construction on the project completion customer survey.

**PROJECT DESCRIPTION**

The Sainsbury Drive project consisted of the reconstruction of 0.8 miles of Sainsbury Drive and the Vienna Metro Station for the Washington Metropolitan Area Transit Authority (WMATA). The scope of work included constructing 2 retaining walls; 2 roundabouts; 30,500 SY of demolition; 259,000 CY of mass excavation; 10,300 LF of utility installation and relocation; 24,000 SY of heavy duty concrete; and 20,255 SY of asphalt paving. Construction activities included demolition of existing roadway and utilities, earthwork, E&S control, installation of new utilities, curb & gutter, sidewalks, roadway widening, paving, signage, striping, and erecting a canopy.

This project is complex due to the many MOT changes, aggressive one-year construction schedule, and extensive coordination with the metro station and numerous subcontractors. The planned 11 phases of construction was revised through collaboration between AI and WMATA to 33 phases of construction to maintain traffic and accommodate the daily continuous flow of pedestrian and vehicular traffic to one of the busiest metro stations in the Washington Area. The revised phasing accommodated additional volumes of traffic during holidays including Independence Day, Thanksgiving, Christmas, and New Years.

New utility installation and existing infrastructure modifications were completed using night-work to minimize public impacts and accelerate the construction schedule. Utilities included sanitary sewer, storm sewer, water line, and electrical duct banks. The existing duct banks were removed and new duct banks installed for the roadway and metro station. Coordination with Dominion Power was necessary to coordinate locations and installation of lighting/wiring.

**LESSONS LEARNED FOR THE PROJECT**

- **Public Safety** – A MOT plan that reflects construction means and methods is important. AI redesigned the MOT plan to include jersey barrier walls with fencing on top to completely isolate each work zone from pedestrian and vehicular traffic. The fencing provided a 6 foot tall barrier.
- **Public Awareness** – Informing the public before any shift in the MOT was key to having zero recordable traffic incidents within the work zone. AI put out message boards 3 days prior to any shift in the MOT and had flaggers out the first day of the shift.
- **Phased Construction** – The roundabouts were each constructed in 6 different phases during non-peak traffic times to minimize disruptions for the public.
- **Stakeholder Coordination** – Daily coordination with the engineer, designer, owner, and WMATA allowed for quick resolution of any issue that arose and helped progress the project schedule without delay.

*"Throughout the project the AI Team worked flawlessly and seamlessly with me and my team, were professional, patient, considerate and efficient. The entire AI Team took the time, in the beginning and throughout, to understand my constraints and requirements, and were always mindful of them, allowing them to be a primary consideration in the way the project progressed."* – Jeff Edelman, Pulte Homes

*For multiple phase projects, only a single phase of construction (or single contract) will be considered as a Project. If additional phases are shown under the same Work History Form, only the first phase (or contract) listed will be evaluated.*

**Roundabout to the west of the metro station**

**Construction progress**

---

*Appendix 3.4 Work History Forms*
## ATTACHMENT 3.4.1(b)

**LEAD DESIGNER – WORK HISTORY FORM**

*(LIMIT 1 PAGE PER PROJECT)*

<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
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<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>
| **FAIRFAX COUNTY PARKWAY INTERCHANGE AT FAIR LAKES PARKWAY** | **Shirley Contracting Company LLC** | Name of Client: VDOT
Phone: 703-259-1723
Project Manager: Mr. Nassre Obeed
Phone: 703-259-1723
Email: Nassre.Obeed@vdot.virginia.gov | 10/2013 | 10/2013 | **$43,961** | **$46,372** Increase due to Owner approved changes |
| Location: Fairfax County, VA | | | | | | **$3,736** |

### VERIFIABLE EVIDENCE OF GOOD PERFORMANCE
- **Project was delivered on-time and under budget with a final cost below the engineer’s estimate.**
- **VDOT and Contractor verified and agreed to earthwork quantities developed by WR&A and agreed not to track as normally required.**

### PROJECT DESCRIPTION
WR&A provided engineering for the study and final design of an interchange at the intersection of the Fairfax County Parkway and Fair Lakes Parkway/Monument Drive intersection. **WR&A led the design from our Richmond office with support from our Fairfax, Pittsburgh and Baltimore offices.**

The project was partially funded by ARRRA for construction, which required extensive coordination with FHWA. The project features include:

**Roadway Reconstruction and Widening** – 2.3 miles of Fairfax County Parkway was widened into the median increasing the number of lanes from 4 to 6 and 0.7 miles was totally reconstructed to facilitate raising FCP up and over Fair Lakes Parkway and Monument Drive. Over 3,000 feet of Fair Lakes Parkway was widened/reconstructed to provide additional turn lanes. WR&A assisted VDOT in coordinating the design of the project with the FCPA for constructing a drainage tunnel into the park and connecting the pedestrian facilities to the Rocky Run Stream Valley Trail in the park.

**Utilities** – Relocation of over 2,100 LF of 18”, 16” and 12” sanitary sewer due to conflicts with the proposed road and drainage design. A portion of the 18” sanitary sewer (470 LF) was installed by jack and bore in a 36” casing and will be under the future grade separation with approximately 30 ft. of cover.

**Structural Design** – The bridge design efforts included the complete design of two single-span structures consisting of precast bulb tee beams spanning 116’ and 142’, each with a width of 124’. Abutments consisted of semi-integral concrete seats on steel piles with MSE retaining walls imprinted with an architectural finish of ashlar stone.

The project also included widening the Fairfax County Parkway bridge over Route 50 by adding two additional travel lanes in the median. The design included over 43,000 sf of retaining walls including MSE, Pile Panel, and Soil Nail and over 70,000 sf of sound barriers. The geotechnical design efforts included an evaluation of all of the walls and the final design of bridge foundations.

**Traffic Control Devices** – The project included freeway overhead signing for the I-66, Fair Lakes Parkway and Route 50 interchanges including ITS facilities. Signals were designed for 7 intersections with coordinated signal timing plans to ensure the efficient flow of traffic.

**TMP Plans** – The project consisted of multiple phases of construction with a complex sequencing of traffic. During construction, through and turn left movements at the intersection of Fairfax County Parkway and Fair Lakes Parkway were detoured onto Fair Lakes Circle. WR&A completed a detailed traffic analysis for each shift in traffic patterns and provided all signal timing plans to the Contractor, and assisted with field implementation of each shift.

**Public Involvement** – WR&A led a series of meetings with the Fair Lakes League that resulted in the donation of right-of-way/easements and utilization of existing private regional stormwater management facilities for the project.

### LESSONS LEARNED FOR THE PROJECT
- **Utility Coordination** – Dominion Power Coordination early in process is critical. Adjustments to Dominion Power transmission main poles were initiated early and the design and adjustments were completed in time and did not affect roadway construction. Also, when relocating asbestos cement (AC) sewer it is critical to make tie-ins at existing manholes and not to cut ties into existing asbestos cement pipe due to issues in dealing with AC pipe.
- **Stakeholder Coordination** – Reaching out to the Park owner resulted in enhancement to both the Park and the proposed project. The design of the trail through the interchange was of significant concern to the Park Authority and Reaching out to the Park owner resulted in enhancement to both the Park and the proposed project. The design of the trail through the interchange was of significant concern to the Park Authority and

### RELEVANCE TO THE PROJECT
- VDOT Transportation Project
- Roadway Widening
- New Bridge Construction
- Shared Use Path
- ROW Acquisition
- Complex TMP
- Utilities Design
- Coordination with Park

### WR&A STAFF INVOLVEMENT
- John Madalin
- Jeremy Schlussel
- David Gertz
- Daniel Seli
- Jeffrey Basford

*Indicates Key Personnel*
**ATTACHMENT 3.4.1(b)**

**LEAD DESIGNER – WORK HISTORY FORM**

(LIMIT 1 PAGE PER PROJECT)

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</thead>
<tbody>
<tr>
<td><strong>Route 123 Interchange at Route 1</strong></td>
<td><strong>DBB - Advertisement</strong></td>
<td>Name: VDOT Phone: 703-259-2961 Project Manager: Calvin Britt Phone: 703-259-2961 Email: <a href="mailto:Calvin.Britt@vdot.virginia.gov">Calvin.Britt@vdot.virginia.gov</a></td>
<td>12/2014 (Advertisement for construction)</td>
<td>12/2014</td>
<td>$70,000 (Est.)</td>
<td>$5,046</td>
</tr>
</tbody>
</table>

**h. Narrative describing the Work Performed by the Firm identified as the Lead Designer for this procurement. Include the office location(s) where the design work was performed and whether the firm was the prime designer or a subconsultant.**

**PROJECT DESCRIPTION**

The Route 123 interchange is in a highly urbanized area with future daily traffic volumes of approximately 90,000 on Route 1. The interchange location required extensive retaining walls due to adjacent development and the proximity of the railroad. The project widens Route 1 to six lanes from Mary’s Way to the Occoquan River for a distance of 1.2 miles. Route 123 is connected to Belmont Bay Drive (east of Route 1 across the railroad) and then extends northward along Route 123 to the I-95 interchange and widens Route 123 to six lanes. Belmont Bay Drive was extended across the CSXT railroad on new alignment to improve access to the Amtrak station. Horner Road and Occoquan Road are also widened under this project. WR&A prepared traffic forecasting and analysis models of existing and design year levels of service. The project is located in the middle of the North Woodbridge redevelopment area and is a key element of the revitalization of the Route 1 Corridor entering Prince William County. WR&A is designing this project from the Richmond office with support from the Baltimore office. The project features include:

**Roadway Reconstruction and Widening** – The project involved the widening of 1.2 miles of Route 1 from the existing four lanes to six lanes with a raised median and 0.6 miles of Route 123 and Belmont Bay Drive. The urban typical section includes a 10-foot multi-use trail and a 5-foot sidewalk. The Route 1 profile was also raised by 7 feet at Marumsco Creek to prevent overtopping by the 25-year design storm event. The total length of roadways and streets reconstructed as part of this project is 3.6 miles.

**Hydraulic Analysis** – The total storm drainage system for the project included over 26,000 LF of pipe and over 370 drainage structures. The project required a detailed hydraulic analysis of Marumsco Creek to ensure that the project had no impact on the 100-year floodplain. Two stormwater management facilities were designed for the project.

**Structural Design** – The design of three bridges is included as part of the project. The Route 1 Bridge over Marumsco Creek is a single span structure which will be constructed 7 feet above the existing structure. The Route 123 interchange bridge over Route 1 is a two-span bridge and is 10 lanes wide with a total width of 160 feet and abutments consisting of semi-integral concrete seats on steel piers with MSE retaining walls. The bridge over the CSXT is also a single span bridge and is 7 lanes wide with a total width of 160 feet and abutments consisting of semi-integral concrete seats on steel piers with MSE retaining walls. The design includes 1,650 feet of RW-3 retaining walls; 5,500 feet of MSE retaining walls; and 400 feet of sound walls.

**Utility Design/Coordination** – Roadway improvements required the in-plan relocation of 12,300 linear feet of 6-inch thru 16-inch water line and 4,300 linear feet of 8-inch thru 24” sanitary sewer. WR&A designed a combined power/telecommunications duct bank from Mary’s Way to the Occoquan River as a standalone project to relocate existing overhead utilities underground. Significant coordination efforts were required with Prince William County Service Authority, Washington Gas, Dominion Virginia Power and Verizon South to ensure no alignment conflicts.

**TMP Plans** – The project consisted of multiple stages of construction with a complex sequencing of construction. Some of the contributing factors to the challenging sequencing included: heavy traffic volumes, raising the profile 7 feet at Marumsco Creek, maintaining access to the adjacent businesses, full depth pavement replacement that included undercuttering, and maintaining all travel lanes and turning movements. An extensive traffic analysis was completed for each stage of construction.

**LESSONS LEARNED FOR THE PROJECT**

- **Maintenance of Traffic** – Detailed traffic analysis of each phase of construction is essential to a quality Transportation Management Plan. Integration of existing and proposed utilities, lighting, signals and ITS into the MOT staging was of utmost importance.

- **ROW Impacts** – The ROW impacts were minimized by the use of innovative approaches to SWM and the use of joint utility easements which also helped accelerate the ROW acquisition.

- **Public Involvement** – Early public outreach included a WR&A led a series of meetings with the local community to identify and address their concerns with the project design. Several meetings were held involving the local County Supervisor, homeowners, individual property owners, and developers to incorporate and address community concerns.

**Relevance to the Project**

- VDOT Project
- Capacity Increase/ Safety Improvements
- Roadway Widening
- New Bridge Construction
- Shared-Use Trail
- Grade Separated Crossing
- ROW Acquisition
- Intricate MOT Phasing including Pedestrians
- Utility Coordination
- Third Party Coordination

**WR&A Staff Involvement**

- John Maddox*
- Jeremy Schlussel
- Daniel Seli
- David Gertz

* Indicates Key Personnel
**ATTACHMENT 3.4.1(b)**

**LEAD DESIGNER - WORK HISTORY FORM**

**LIMIT 1 PAGE PER PROJECT**

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</tr>
</thead>
<tbody>
<tr>
<td>Name: WALNEY ROAD BRIDGE REPLACEMENT &amp; ROAD WIDENING DESIGN-BUILD</td>
<td>Name: American Infrastructure, Inc.</td>
<td>Name of Client: VDOT</td>
<td>Phone: (703)259-1940</td>
<td>DB Project Manager: Arif Rahman, PE</td>
<td>Phone: (703)259-1940</td>
<td>Email: <a href="mailto:MD.Rahman@VDOT.Virginia.gov">MD.Rahman@VDOT.Virginia.gov</a></td>
</tr>
</tbody>
</table>

**Name of Client:** VDOT  
**Phone:** (703)259-1940  
**DB Project Manager:** Arif Rahman, PE  
**Phone:** (703)259-1940  
**Email:** MD.Rahman@VDOT.Virginia.gov  
**Date:** 12/2015  
**Status:** (Awaiting Notice to Commence ROW Acquisition)  
**Contract Value:** $11,222  
**Construction:** $11,222  
**Relevance to the Project:**  
- VDOT Transportation Project  
- Design-Build  
- New Bridge Design  
- Road Widening  
- Pedestrian/Bike Accessibility  
- ROW Acquisition  
- Maintenance of Traffic  
- Utility Coordination  
- Other  

**AI/WR&A Staff Involvement**  
- Tom Heil*  
- Brian Henschel*  
- John Maddox*  
- Ivan Saez*  
- Jeremy Schlussel  
- Daniel Seli  
- David Gertz  
- Jeffrey Basford  
- Others  

*Indicates Key Personnel

**h. Narrative describing the Work Performed by the Firm identified as the Lead Designer for this procurement. Include the office location(s) where the design work was performed and whether the firm was the prime designer or a subconsultant.**

**PROJECT DESCRIPTION**

Whitman, Requardt and Associates, LLP (WR&A) is the lead design firm for the proposed four lane bridge over Flatlick Branch that includes the widening of over 1/2 mile of Walney Road from a 2-lane to 4-lane section with striped median, turn lanes, and 5 ft bike lanes in each direct. The project also includes a 5-ft sidewalk to the west of Walney Road and a 10-ft shared use path to the east. WR&A is also providing Quality Control for the construction of the VDOT Design Build project. WR&A’s Fairfax office is leading the project with support from the Richmond and Baltimore offices.

**Roadway Reconstruction** – WR&A shifted the roadway alignment slightly to improve the overall safety and quality of the roadway. Curb and gutter is being added through the length of the project along with an open and closed drainage system. A detour is also being implemented during the construction of the bridge and approaches to minimize schedule delays during the bridge construction.

**Geotechnical and Pavement Analysis/Design** – WR&A is responsible for the geotechnical and pavement design for the project. WR&A geotechnical staff coordinated with American Infrastructure to optimize the pike size and numbers during the design. In addition, a detailed loading and vibration analysis was conducted to evaluate the impact during construction to an existing 24” sanitary line approximately 70 feet away from the bridge foundations.

**Utility Coordination and Relocations** – WR&A provided utility coordination for all 11 utilities along the project, which included extensive coordination with Dominion Power, Verizon, water, gas, and several cable and fiber optic facilities. The project also included in-plan relocation design. A VDOT joint utility easement was proposed along the west side of Walney Road and required working closely with all utilities to determine final locations and sequencing of the relocations.

**Bridge Design** – Single span bridge structure crossing Flatlick Branch consisting of adjacent box beams with a full composite concrete deck 85 ft. long and 78 ft. wide and skewed 25 degrees. Bridge is founded on spill through type abutment bent cap on steel piles designed to accommodate the 100 year scour condition. Bridge is adorned with open steel pedestrian railings on the superstructure and stone formliner patterns for the exposed substructure surfaces for the architectural treatment.

**Lighting Design** – Roadway and pedestrian lighting is required along the entire length of the project. This involves coordination of the lighting design with VDOT, Fairfax County and Dominion VA Power. Due to the number of utilities and the corridor, lighting design that minimized utility relocation and right of way impacts while still meeting the desires of all stakeholders was challenging.

**Park Authority Coordination** – The AI/WR&A Team is coordinating with Fairfax County Park Authority to obtain easements for drainage and utility relocation and address impacts to driveway access and walkway on the Park property required coordination by the project team with the Park Authority. This included multiple coordination meetings and responding to plan comments from the Park. Temporary access to the park trails are required to be maintained during construction of the project. This access requires a temporary trail connection to be constructed prior to the final trail connection being placed.

**Schedule** – The Project F/RW Plans have been submitted and reviewed by VDOT with Notice to Commence RW Acquisition anticipated by early August 2014 and RW clearance expected in November 2014 which will coincide with initiation of advanced utility relocation efforts. Completion of the design and issuance of AFC packages are anticipated to occur from November 2014 through December 2014 with roadway construction activities planned to extend from January 2015 through December 2015.

**LESSONS LEARNED FOR THE PROJECT**

- Utility Coordination – Sequencing of the utility relocations can have serious impacts to scheduling of construction and coordination of the relocation early in the design process is critical to successfully delivering design build projects. This is especially true when dealing with overhead utilities on the same poles that prefer sequential relocations.

- Stakeholder Coordination – Early coordination with project stakeholders will result in a project that fits into the context of the project site. On Walney Road, the early coordination with the Fairfax County Park Authority has resulted in a very cooperative approach to dealing with the impacts and easements associated with the Park property.