Copy No. 1 of 10

VDOT
Virginia Department of Transportation

Submittal of Qualifications

A DESIGN-BUILD PROJECT

Gloucester Parkway Extension

From: Loudoun County Parkway

To: Pacific Boulevard

Loudoun County, Virginia

State Project No.: 2150-053-052, UPC No.: 104418

Contract ID No.: C00104418DB68

Date: June 27, 2013

American Infrastructure

WR&A
WHITMAN, REQUARDT & ASSOCIATES, LLP

3.1.2 SOQ Checklist

ATTACHMENT 3.1.2

Project: 2150-053-052

STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

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

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 15-page limit?	SOQ Page Reference
Statement of Qualifications Checklist and Contents	Attachment 3.1.2	Section 3.1.2	no	Pages i-iii
Acknowledgement of RFQ, Revision and/or Addenda	Attachment 2.10 (Form C-78-RFQ)	Section 2.10	no	Page iv
Letter of Submittal (on Offeror's letterhead)				
Authorized Representative's signature	NA	Section 3.2.1	yes	Page 2
Offeror's point of contact information	NA	Section 3.2.2	yes	Page 2
Principal officer information	NA	Section 3.2.3	yes	Page 2
Offeror's Corporate Structure	NA	Section 3.2.4	yes	Page 2
Identity of Lead Contractor and Lead Designer	NA	Section 3.2.5	yes	Page 2
Affiliated/subsidiary companies	Attachment 3.2.6	Section 3.2.6	no	Appendix 3.2.6
Debarment forms	Attachment 3.2.7(a) Attachment 3.2.7(b)	Section 3.2.7	no	Appendix 3.2.7
Offeror's VDOT prequalification evidence	NA	Section 3.2.8	no	Appendix 3.2.8
Evidence of obtaining bonding	NA	Section 3.2.9	no	Appendix 3.2.9

ATTACHMENT 3.1.2

Project: 2150-053-052

STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 15-page limit?	SOQ Page Reference
Full size copies of SCC and DPOR registration documentation (appendix)	NA	Section 3.2.10	no	Appendix 3.2.10
SCC Registration	3.2.10	Section 3.2.10.1	no	Appendix 3.2.10
DPOR Registration (Offices)	3.2.10	Section 3.2.10.2	no	Appendix 3.2.10
DPOR Registration (Key Personnel)	3.2.10	Section 3.2.10.3	no	Appendix 3.2.10
DPOR Registration (Non-APELSCIDLA)	3.2.10	Section 3.2.10.4	no	Appendix 3.2.10
DBE statement within Letter of Submittal confirming Offeror is committed to achieving the required DBE goal	NA	Section 3.2.11	yes	Page 2
Offeror's Team Structure				
Identity of and qualifications of Key Personnel	NA	Section 3.3.1	yes	Pages 3-4
Key Personnel Resume – DB Project Manager	Attachment 3.3.1	Section 3.3.1.1	no	Appendix 3.3.1
Key Personnel Resume – Quality Assurance Manager	Attachment 3.3.1	Section 3.3.1.2	no	Appendix 3.3.1

ATTACHMENT 3.1.2

Project: 2150-053-052

STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 15-page limit?	SOQ Page Reference
Key Personnel Resume – Design Manager	Attachment 3.3.1	Section 3.3.1.3	no	Appendix 3.3.1
Key Personnel Resume – Construction Manager	Attachment 3.3.1	Section 3.3.1.4	no	Appendix 3.3.1
Key Personnel Resume – Lead Structural Engineer	Attachment 3.3.1	Section 3.3.1.5	no	Appendix 3.3.1
Organizational chart	NA	Section 3.3.2	yes	Page 6
Organizational chart narrative	NA	Section 3.3.2	yes	Pages 4-7
Experience of Offeror's Team				Pages 8-9
Lead Contractor Work History Form	Attachment 3.4.1(a)	Section 3.4.1	no	Appendix 3.4.1
Lead Designer Work History Form	Attachment 3.4.1(b)	Section 3.4.1	no	Appendix 3.4.1
Project Risk				
Identify and discuss three critical risks for the Project	NA	Section 3.5.1	yes	Pages 10-15

Attachment 2.10 Form C-78

ATTACHMENT 2.10

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

RFQ NO. C00104418DB68

PROJECT NO.: 2150-053-052

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 05/14/13
   (Date)
2. Cover letter of RFQ Addendum No. 1 06/06/13
   (Date)
3. Cover letter of _____
   (Date)

_____ 6/27/13

SIGNATURE DATE

3.2 Letter of Submittal

American Infrastructure

301 Concourse Boulevard, Suite 300
Glen Allen, VA 23059
Phone: 804-290-8500 Fax: 804-418-7935
www.americaninfrastructure.com

"BETTER, FASTER, SAFE"

June 27, 2013

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

Letter of Submittal/Statement of Qualifications:
Gloucester Parkway Extension
State Project No.: 2150-053-052, UPC No: 104418
Contract ID Number: C00104418DB68

Dear Mr. Kevin Reichert:

American Infrastructure and Whitman, Requardt & Associates, LLP (AI/WR&A Team) have joined together to compete for award of VDOT's Gloucester Parkway Extension Project (Project). Our firms bring a thorough understanding of working in the NOVA District and Northern Virginia, design-build experience, and complex bridge experience. Combining our experience for VDOT, we bring over 106 years of successfully delivering projects in Virginia.

The AI/WR&A Team has an extensive portfolio of completed and current design-build projects. AI has been awarded nine design-build transportation projects worth over $650M in the last ten years and is currently working on three design-build projects for VDOT. WR&A has completed over 60 design build transportation projects in the region in the last bridge cost of $55M and *Atkinson Boulevard in Newport News* – 1,500 feet long with a bridge cost of $30M. AI has been building bridges in the Mid-Atlantic region since the 1970s and constructed their first bridge over water nearly 30 years ago. AI's recent bridge construction projects include the *I-81 Bridge over the Swatara River* – 1,000 feet long with a construction cost of $55M and the *Contee Road Bridge and Interchange over I-95 Design-Build* – 520 feet long with a construction cost of $34M.10 years and has two projects underway in Virginia.

Our complex bridge design and construction experience ensures the AI/WR&A Team's bridge design will include innovation focused on minimizing bridge deck joints to improve long-term maintenance while meeting all VDOT design criteria and guidelines. WR&A has been designing major stream and river crossings for VDOT since the 1960s. Current design projects include two of the largest bridge projects in the state: *I-81 Bridges over the New River* – 1,700 feet long with a

Regardless of delivery method, the construction process is inherent with risk. VDOT does an outstanding job of identifying potential risks to every project during the RFQ process. It is incumbent on the shortlisted teams to address not only the risks identified by VDOT but to thoroughly analyze the project and mitigate all the risks. The risk mitigation process is a collaborative effort of design and construction utilizing the creativity of designers and the practical field knowledge of seasoned construction professionals. On the Gloucester Parkway Extension Project, this collaboration is critical to providing a cost-effective design that will minimize environmental impacts to Broad Run and the surrounding floodplain.

In addition to providing an efficient and effective design, safety sits at the top of our list of commitments to VDOT. Through AI's "Home Safe Tonight" initiative, safety is planned into every phase and work operation in the construction process. The result of our relentless safety focus is evidenced by AI's Recordable Incident Rate of 1.01, which is well below the construction industry average of 3.5.

SUBMITTAL REQUIREMENTS

The AI/WR&A Team submits the information below as detailed in Section 3.2 of the Request for Qualifications:

3.2.1 The full legal name and address of American Infrastructure – VA, Inc. (AI-VA) is as follows:
American Infrastructure – VA, Inc., 301 Concourse Boulevard, Suite 300, Glen Allen, VA 23059

3.2.2 The contact information for Aaron Myers (DBPM), responsible for the oversight of the entire AI/WR&A Team and the primary point of contact with VDOT is as follows:

Aaron Myers, VP/GM
301 Concourse Boulevard – Suite 300
Glen Allen, VA 2305

804.290.8500 (Telephone)
804.418.7935 (Fax)
aaron.myers@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, VP/GM
301 Concourse Boulevard – Suite 300
Glen Allen, VA 2305

804.290.8500 (Telephone)
804.418.7935 (Fax)
aaron.myers@americaninfrastructure.com

3.2.4 AI-VA is a registered corporation in the Commonwealth of Virginia and will take 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 Attachment 3.2.6 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 $38.5M estimated contract value of the Project as exhibited by the letter of surety in **APPENDIX 3.2.9**.

3.2.10 The summary of professional licenses, Attachment 3.2.10, as well as 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 6% DBE participation goal for the Project. AI-VA consistently meets DBE goals and has met the goal on both of our completed design-build projects in Virginia.

The AI/WR&A Team is committed to contribute our creativity and expertise to the success of the Gloucester Parkway Extension Project in Loudoun County. The narrative in the following pages highlights our common values and demonstrates our dedication to meet VDOT's expectations. We look forward to your review of our submittal.

Respectfully,

Aaron T. Myers, VP/GM
American Infrastructure – VA, Inc.

3.3 Team Structure

The AI/WR&A Team's strong relationships and project experience with VDOT and Loudoun County staff will ensure the project design and construction meets all the requirements of the RFP, while minimizing VDOT staff efforts to review project submittals. This experience includes AI's five VDOT design-build projects and WR&A's experience on over 100 projects for the VDOT NOVA District.

3.3.1 KEY PERSONNEL

3.3.1.1 Design-Build Project Manager (DBPM): AI has identified ***Aaron Myers*** as DBPM for the Project and the primary point of contact for VDOT. Currently the VP/GM for AI-VA, Mr. Myers has 12 years of design-build experience. He will be responsible for prosecution and progress of the work under the contract including corresponding with third-parties and project stakeholders, oversight of construction quality, coordination of design, and managing the project schedule to ensure timely completion. Mr. Myers plays a key role in design and construction of all AI's projects. In addition, he has managed and provided oversight for construction of six design-build projects, including the *Richmond Airport Connector Road* and *Route 29 Bridge over Tye River Design-Build projects.* Prior to joining AI, Mr. Myers managed the design for portions of the $500M Cooper River Bridge in Charleston, SC. His focus on customer satisfaction and prompt issue resolution will help create a level of transparency and trust between the design-build team and project stakeholders.

3.3.1.2 Quality Assurance Manager (QAM): *Gale Dickerson, P.E.* has 25 years of experience in both the public and private sectors. In the public sector, Ms. Dickerson was assigned to VDOT's Fredericksburg District. This assignment enabled Ms. Dickerson to gain a thorough understanding of VDOT's quality assurance inspection, testing and construction quality control programs. Upon joining the private sector, Ms. Dickerson has put into practice her knowledge of VDOT's programs. Ms. Dickerson is currently serving as the QAM on AI's *Middle Ground Boulevard Extension Design-Build project* and has worked as the QAM on the *Route 29 NBL Bridge over the Tye River project.* Ms. Dickerson has also worked extensively with WR&A's bridge design group while serving as ACE and Resident Engineer in the Fredericksburg District on projects including the *Norris Bridge Rehabilitation* and the *West Point Bridge Approach Repair* projects.

3.3.1.3 Design Manager (DM): *John Maddox, P.E.* has 28 years of experience designing major highway facilities and will serve as the DM for this Project. He has been functioning in this capacity for over 20 years and has designed several similar bridge replacements and widening projects in the Commonwealth. 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 bridge projects including the I-81 Bridges over Buffalo Creek (606 ft.), Maury River (825 ft.) and the New River (length of 1,700 ft.), as well as the First Street Bridge (860 ft.) in the City of Richmond. This experience has provided Mr. Maddox with expertise to lead this challenging design-build project. In addition, he will establish and oversee the design of a QA/QC program for all disciplines including review of design, working plans, shop drawings, specifications, and constructability.

3.3.1.4 Construction Manager (CM): *Kevin Ott* has 17 years of construction experience, and manages design-build construction projects for AI. His expertise includes interstate, interchange, and bridge construction projects. Mr. Ott's experience and attention to construction quality control will ensure all material and work performed meets contract requirements and the "approved for construction" plans and specifications. Mr. Ott is currently overseeing the *I-95 at Contee Road Interchange Design-Build Project* in Maryland. Mr. Ott also held key positions on both the *Woodrow Wilson Bridge Replacement* and *Inter-County Connector Design-Build* projects. He managed coordination of significant utility relocation challenges on the *Inter-County Connector and Contee Road Project*. Mr. Ott lives approximately 8 miles from the Project, providing the ability to promptly respond to any issues that arise during construction.

3.3.1.5 Lead Structural Engineer (LSE): *Jeremy Schlussel, P.E.*, has 17 years of experience and will lead the bridge design efforts for the Project. He will ensure all structural designs are completed in accordance with VDOT's Road and Bridge Standards and design manuals. Mr. Schlussel is currently the Lead Structural Engineer for the *GMU Campus Drive Connector Route 123 Bridge and Improvements Design-*

Build and the *Route 636 over BBRR PPTA projects*. His experience also includes the design of several major VDOT bridge projects, such as the *I-81 Buffalo Creek, Maury River, and New River Bridge Replacements* and the *Fairfax County Parkway Interchange at Fair Lakes Parkway*.

DBPM, Aaron Myers	QAM, Gale Dickerson, P.E.	DM, John Maddox, P.E.	CM, Kevin Ott	LSE, Jeremy Schlussel, P.E.
▪ 12 yrs. design-build experience ▪ 4 VDOT design-build projects ▪ Complex bridge construction ▪ Design oversight ▪ Quality Management ▪ Contract administration	▪ 25 yrs. experience ▪ QAM on 3 VDOT design-build projects ▪ QAM on 2 AI design-build projects ▪ QC monitoring ▪ Bridge construction inspection ▪ Conformance with contract requirements	▪ 28 yrs. experience ▪ 12 yrs. VDOT NOVA experience ▪ Design-build ▪ Complex bridge design ▪ Design QA/QC oversight ▪ Design reviews ▪ Constructability	▪ 17 yrs. experience ▪ 13 yrs. design-build experience ▪ Complex bridge construction ▪ Construction Quality Control ▪ Responsible environmental construction	▪ 17 yrs. experience ▪ LSE on 2 Virginia design-build projects ▪ 12 yrs. VDOT NOVA experience ▪ LSE on four major complex bridge projects ▪ Field condition verification

Figure 3.3.1: Key Personnel Relevant Experience. *The AI/WR&A Team key personnel will minimize the project risks through personal experience and team accountability.*

3.3.2 Organizational Chart and Narrative

Functional Relationships and Communication Narrative

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 PR Manager will facilitate involvement of stakeholders to minimize additional effort by VDOT.

Design-Build Management – Our DBPM will serve as VDOT's single point of contact for the Project. Reporting to the DBPM are four primary reports; the QAM, DM, CM and PR Manager. This structure, combined with our DBPM's maintenance of an action item log for potential project issues and three-month look-ahead schedule will ensure the design, construction, and environmental compliance efforts remain on-schedule and in conformance with VDOT commitments.

Quality Assurance –The QAM will report to our DBPM, with independent oversight by VDOT. QA Inspectors and Labs will report through the QAM. Our QAM will also monitor the construction QC program to ensure all work and materials, testing, and sampling is performed in accordance with the contract requirements and the "approved for construction" plans and specifications.

Volkert & Associates, Inc. (Volkert) will subcontract with AI to provide QA services for the Project. Volkert has 35 professionals dedicated to QA/QC and experienced with VDOT's road and bridge standards and specifications. In addition, Volkert's QAM for the Project has recent experience as QAM on two of AI's design-build projects for VDOT, specifically *Middle Ground Boulevard* and *Route 29 NBL Bridge over the Tye River*. ***Froehling & Robertson, Inc. (F&R)*** will provide QA testing and will subcontract with Volkert.

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 QA/QC Manager and design discipline leads will all report to the DBPM. Design QA/QC Manager, ***Gary Shelor, P.E.***, will provide overall quality assurance and quality control for the Project. Mr. Shelor is a former VDOT District Bridge Engineer with over 39 years of experience. In addition to the design task leads, we have identified a Lead Utility Coordinator for the Project. The Lead Utility

Coordinator, Daniel Seli, P.E. will coordinate with the utilities and work with design task leads to minimize utility impacts and incorporate utility requirements into the design.

WR&A will complete all design efforts, except surveying and ROW acquisition for the Project. ***Bowman Consulting Group, LTD. (Bowman)*** will be subcontracted to WR&A to provide surveying and ROW acquisition services. Their staff has expertise with land rights issues and managing ROW agents, appraisers, title companies and survey crews. Bowman's experience in Northern Virginia includes working with WR&A on VDOT's *Route 1/123 Interchange at Route 1 project* in Prince William County, performing the ROW acquisition of over 90 parcels.

Relevant Design Team Experience		
Roadway Design Lead, Bruce Barnett, P.E. has 23 years of experience and has completed more than 90 assignments under the NOVA District On-Call Design Contract over the last five years.	*Lead Utility Coordinator, Daniel Seli, P.E. has 25 years of experience and has served as the Project Manager for the VDOT Statewide and NOVA Utility Relocation contracts since 1994.*	*Hydraulic Design Lead, David Gertz, P.E. has 34 years of experience and has completed over 50 floodplain analyses for bridge projects. He is currently completing analysis for this segment of Broad Run for the Horsepen Dam project.*

Figure 3.3.2: Design Team Experience. *WR&A design leads for roadway, utilities, and hydraulics bring experience in their areas of expertise and previous work history with VDOT's NOVA District.*

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. He will oversee the entire construction team, including the Bridge Superintendent and Roadway Superintendent, who will oversee construction crews in the field. Construction leads have been identified for environmental compliance, MOT coordination, field utility coordination, safety, and schedule management and will all report to the CM.

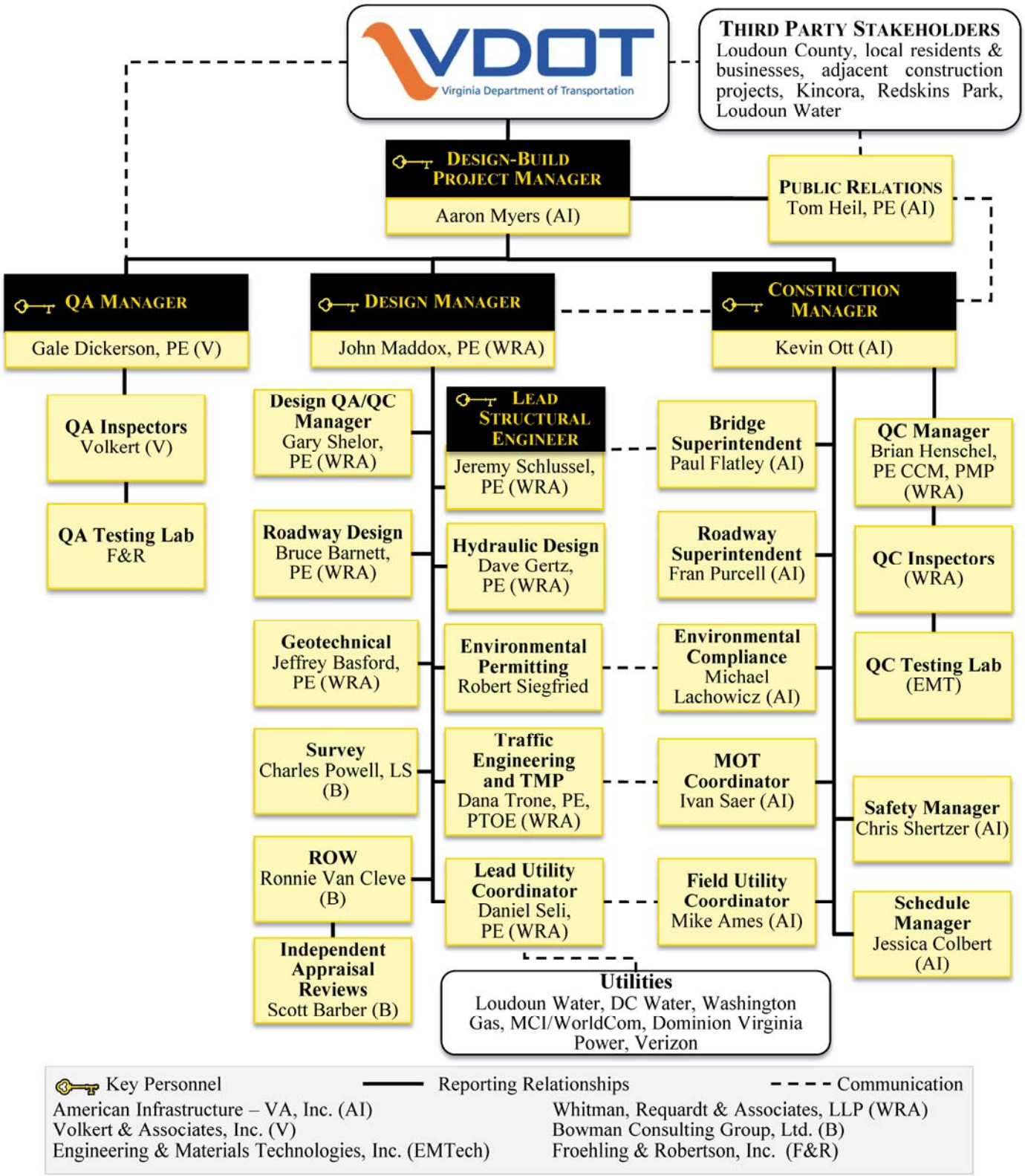
Construction Quality Control will be managed by WR&A to ensure construction is compliant with the final design and VDOT specifications. WR&A is currently providing QC services to VDOT on six Construction Engineering and Inspection contracts including two contracts in the VDOT NOVA District. QCM, ***Brian Henschel, P.E., CCM, PMP*** has over 17 years of experience and is currently working on two design-build projects, *GMU Campus Drive Connector Route 123 Bridge and Improvements* and the *Route 636 over BBRR PPTA* 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.

Engineering & Materials Technologies, Inc. (EM Tech) will provide QC testing for this Project. EM Tech is experienced in QC testing and has previously provided QA testing services with WR&A for the *GMU Campus Drive Connector Route 123 Bridge and Improvements project*.

Relevant Construction Team Experience		
Bridge Superintendent, Paul Flatley has over 12 years of experience and oversaw construction of VDOT's Route 29 NBL Bridge over Tye River Design-Build project. The Tye River project was opened to traffic nine months ahead of schedule.	*Environmental Compliance Construction Lead, Michael Lachowicz will manage erosion and sediment controls during construction through weekly SWPPP inspections and daily site observations. His experience includes Potomac Yards Jefferson David Highway Improvements.*	*Field Utility Coordinator, Mike Ames has been responsible for several large utility installation and relocations projects. His experience includes coordination of over 2 miles of 60" sanitary trunk line to upgrade the Lorton (Pohick) waste water treatment plant.*

Figure 3.3.3: Construction Team Experience. *AI's bridge superintendent, environmental compliance lead, and field utility coordinator will manage the Project's construction risks through previous experience in their project assignments.*

ORGANIZATIONAL CHART – Our organizational chart shows the chain of command of all companies and includes the individuals responsible for pertinent disciplines. The team structure shows a clear separation between the Quality Control (QC) and Quality Assurance (QA) programs for construction activities. This organizational structure is similar to the successful model used by AI on the VDOT *Route 29 NBL Bridge over Tye River and Richmond Airport Connector Road Design-Build projects.*



TEAM COORDINATION MEETINGS – Team coordination meetings with focused agendas will facilitate effective project management and resolve project challenges before they become critical.

Task Team Meetings – Integrated task teams will manage elements critical to the Project's success during design and construction. Task teams for bridge design optimization, utility coordination, environmental management, and roadway design will proactively manage these focus areas with oversight by our DBPM.

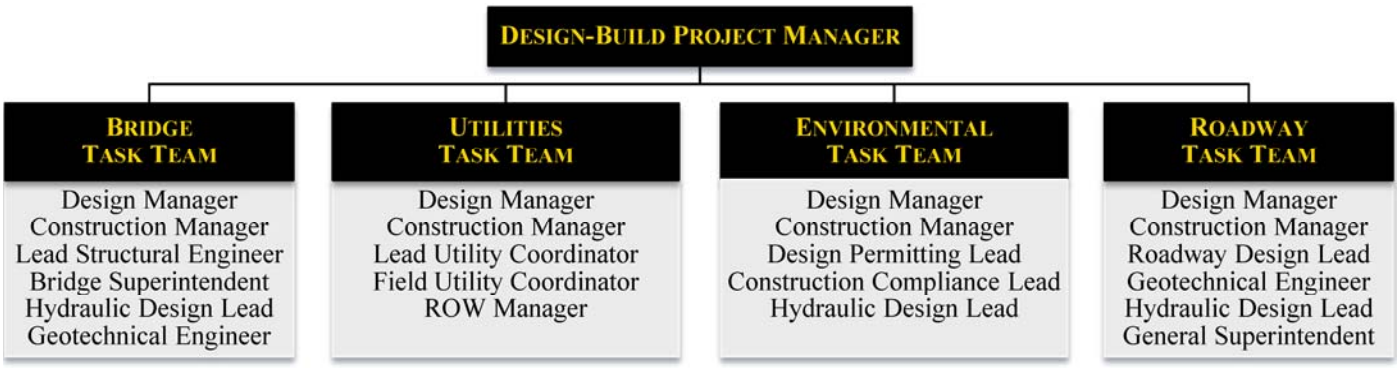


Figure 3.3.4: Task Teams. *Task teams that manage critical project elements demonstrate organizational integration and interaction throughout design and construction of the Project.*

Design Coordination Meetings – Coordination will occur between the design and construction teams to incorporate means and methods at critical stages of design. Meetings may also include design disciplinary reviews, over the shoulder reviews, and any comment resolution meetings with stakeholders. Task forces may be established by design discipline as necessary to coordinate technical discussions between the project stakeholders and the AI/WR&A Team. A critical element of the design will be the bridge, which will require coordination between roadway, hydraulic, geotechnical and the CM during the development of the Stage 1 Bridge Report and the Stage 2 Final Design.

Utility Coordination Meetings – After an initial utility kickoff meeting with all utility owners, the utility task team will coordinate design and construction of each utility with the Project scope of work. Where issues arise, the task team will meet to address and resolve the conflict with the necessary parties present. These meeting will also be used to discuss the schedule with each utility owner.

Progress Meetings –Weekly progress meetings will discuss key issues including design status, construction status, project schedule, ROW status, contract administration, safety, and public outreach with updates provided by the responsible person. Project stakeholders will be invited to attend, as necessary. Monthly meetings between the key personnel, and others designated by them, will discuss and resolve high level issues that may impede work progress.

Public Outreach Meetings – Open houses may be used to allow the public to view plans and discuss concerns through the design and construction process. The DBPM and DM will be present to answer questions and address possible concerns.

Schedule Review Meetings – Schedule controls will include daily coordination meetings, as well as weekly planning and schedule meetings. Daily coordination meetings between the CM, senior inspectors, and VDOT's representative will facilitate communication regarding construction progress. Weekly planning and schedule meetings may include the QA and QC team, VDOT representatives, and design team members as necessary. The weekly look ahead schedule and the project monthly CPM schedule will be distributed.

Safety Meetings – Before and after each shift, field supervisors will review safety issues and successes with their crew as part of the work planning process. Once a month the entire project staff will review safety on the Project, address any issues, and recognize work completed safely. All members of the project staff will have the opportunity to promptly bring their concerns to the attention of the management team during safety meetings.

The AI/WR&A Team's collective experience with design-build projects, major bridge transportation projects, and experience with VDOT's NOVA District provides a strong team for this Project.

American Infrastructure (AI) is a heavy civil contractor that has provided quality construction services in the Mid-Atlantic region since 1939 and in the Commonwealth of Virginia since 1967. Currently ranked #116 in the Top 400 Contractors and #24 in Top 50 Domestic Heavy Contractors by *Engineering News-Record*, AI has a Virginia workforce of over 300 employees and 250 pieces of heavy equipment. AI strategically positions our 1600 employees and 1300 pieces of equipment throughout the Mid-Atlantic region. This resource positioning enables AI to exceed schedule expectations and respond promptly to schedule challenges that arise due to external forces beyond our control.

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 #111 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 650 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.

DESIGN-BUILD EXPERIENCE

AI has been awarded over $650M of design-build projects in the Mid-Atlantic region to date, including $479M for VDOT projects in the past five years. This design-build project experience includes:

- Route 29 Bridge over Tye River
- Richmond Airport Connector Road
- I-95 at Contee Road Interchange
- I-581 Elm Avenue Interchange Improvements
- Middle Ground Boulevard Extension
- Route 460 Corridor Improvements
- SR 476, Section RDC
- US 40 Interchange at MD 715
- I-695 from I-97 to MD-10

WR&A has completed over 60 design-build transportation projects in the region in the last ten years and is currently working on two Virginia design-build projects. This design-build project experience includes:

- GMU Campus Drive Connector Route 123 Bridge and Improvements
- MD 237 Bridge and Widening
- I-95/I-495 at Arena Drive Interchange
- Route 636 Bridge over BBRR PPTA

AI/WR&A SHARED WORK HISTORY

In a traditional design-bid-build relationship, AI and WR&A have been working together since 2009 on transportation projects throughout the region. Currently, our firms are jointly pursuing several VDOT design-build projects in Northern Virginia. Similar projects where we worked together include:

- Route 208 Bridge over Lake Anna, *Spotsylvania County, VA*
- Nicodemus Road Bridge, *Baltimore, MD*
- Newbury Street over Western Run Superstructure Replacement, *Baltimore, MD*
- Runway 15R/33L Earthwork Package at BWI Airport, *Baltimore, MD*
- I-695 Inner & Outer Loop Safety & Resurfacing, *Baltimore County, MD*
- Broening Highway over Colgate Creek Immediate Girder Repairs, *Baltimore, MD*

WORK HISTORY FORMS (APPENDIX 3.4.1)

AI and WR&A have included projects that best demonstrate our individual qualifications for the Project.

AI Work History

- Route 29 Bridge over Tye River Design-Build
- I-95 at Contee Road Interchange Design-Build
- Richmond Airport Connector Road Design-Build

WR&A Work History

- I-81 Bridge over Buffalo Creek
- I-81 Bridge over Maury River
- Fairfax County Pkwy Interchange at Fair Lakes

ADDITIONAL RELEVANT EXPERIENCE

In addition to the work history forms provided, the AI/WR&A Team has identified the following major bridge construction projects that have similarities to the Project and further demonstrate our qualifications.

SR 81, Section 023, *Lebanon County, PA* ($55.1M) – AI reconstructed 8.5 miles of 4-lane divided highway and rebuilt interchanges with I-78 and Fisher Avenue. The scope of work included demolition and reconstruction of six bridges and rehabilitation of two bridges. Twin bridges, each nearly 1,000' long, were constructed 90 feet above the Swatara River.

Piers constructed in the floodplain required dewatering and utilized accelerated concrete to minimize the duration of construction. Support of excavation was required for the pier footers, which were excavated down to rock elevation. Working on the banks of the river required strict E&S controls to maintain clean water discharge to this trout stream. These controls included silt fence and rip rap filters, and were monitored continuously during construction.

Demolition of the existing structures was delayed and allowed utilization of the existing bridge as a staging area and haul road during construction. A rip rap causeway and temporary bridge provided access for cranes to cross the river during construction. Unsuitable subgrade soils were stabilized using lime and fly ash to eliminate the need for removal and replacement with borrow material.

Nicodemus Bridge, *Baltimore, MD* ($8.6M) – AI completed replacement of the existing six-span bridge over the Liberty Reservoir with a five-span bridge in August 2011. Construction of the new 565 foot long bridge was facilitated by utilizing the existing bridge as a working platform. *Construction operations were analyzed by WR&A, performing construction engineering, to ensure the existing bridge was not overloaded during construction.* This approach accelerated bridge construction by allowing multiple crews to work simultaneously on the substructure elements. Working from the existing bridge eliminated the need to work from barges which would have created safety challenges.

"American Infrastructure has exceeded our expectation. Their quality of work has been excellent on a project that is ahead of schedule and below budget" – Timothy Domenick, Construction Project Supervisor, Baltimore City regarding the Nicodemus Bridge project in Baltimore, MD.

VDOT I-81 Bridge Replacement over the New River and Exit 105 Modifications, *Montgomery and Pulaski Counties, VA* ($65M) –WR&A was retained to provide complete planning and engineering design services to VDOT for the replacement of two 1,600-foot bridges that carry Interstate 81 traffic over the New River, and modifications to the adjacent Route 81/Route 232 Interchange at I-81 Exit 105. Services include planning and design of the Route 81 bridge replacements and approaches; bridge replacement of the Route 232 Bridge over Route 81. The proposed I-81 bridges over the New River will be a new 7-span, continuous, haunched structural steel superstructure resting on dual hammerhead piers with a total length of approximately 1,670 feet.

3.5 Project Risks

In preparation of this SOQ, the AI/WR&A Team has reviewed VDOT's project documents, visited the project site, and evaluated the site conditions to identify three risks critical to the success of the Project. Our discussion of risk elements included permitting, stakeholder involvement, ROW acquisition, bridge constructability, and the accelerated project schedule. In analyzing the potential schedule implications based on the current level of design, we developed the following timeline for design and construction.

DESIGN AND CONSTRUCTION SCHEDULE OVERVIEW	
Design-Build Notice to Proceed	December 2013
Begin ROW Acquisition / Utility Relocations	July 2014
Approved for Construction Plans and Permits	November 2014
Start of Construction	November 2014
Substantial Completion	April 2016
Project Completion	June 2016

This schedule overview has been reviewed by key staff on the AI/WR&A Team and deemed reasonable. In deciding the three critical risks, we focused on the factors that will influence the bridge length, which is the key to a cost-effective bridge design that will be competitive at the RFP stage of the Project. As discussed by VDOT staff at the RFQ Information Meeting on May 24th, the potential to shorten the bridge exists. *We ultimately decided that floodplain considerations/hydraulics, geotechnical conditions, and utility relocations were most critical to the design and construction of this Project*.

The AI/WR&A Team's approach to risk mitigation is to complete the analysis necessary, minimize the impacts through design optimization, and leverage our expertise through lessons learned on previous similar projects. This approach is applied specifically to each risk element in the following narratives.

FLOODPLAIN CONSIDERATIONS/HYDRAULICS

DESCRIPTION – The Gloucester Parkway Extension project includes a proposed bridge across the 100-year floodplain of Broad Run, which is defined by FEMA as "Zone AE". According to the VDOT drainage manual, the 100-year flood level cannot be increased where flood elevations have been established and published (Zone AE).

The design of the proposed bridge will determine the level of impact on the existing 100-year Floodplain limits. The length of the bridge, pier spacing, and pier location will be driven by the floodplain analysis. The current floodplain limit encompasses the entire Gloucester Parkway intersection with Pacific Boulevard. Loudoun County is in the process of updating the FEMA Floodplain Study. Since a preliminary H&HA analysis has not been conducted, there are significant unknowns in determining a cost-effective and environmentally sensitive project design.

***Figure 3.5.1: Floodplain Site Photo**. During field investigations in preparation of this SOQ, standing water was observed across the site.*

The AI/WR&A Team visited the site during a rain event and witnessed standing water across a majority of the area between Broad Run and Pacific Boulevard. Working conditions during construction in a floodplain will be variable and require additional measures to accommodate weather events.

IMPACTS – The bridge design will be driven by the floodplain and rely heavily on the hydraulic analysis. As a result, environmental, cost, and schedule impacts have been identified and will be confirmed or eliminated as a result of the floodplain analysis. Variable conditions during construction may impede construction access.

Environmental: Based on a field visit, there are wetlands within the project site that will be impacted by the project and there appears to be a large wetland mitigation site between Nokes Boulevard and the forested area adjacent to the east of Broad Run. The forested floodplain on the east side of Broad Run is fairly flat with several wetland complexes and linear wetlands/streams winding through the area. The bridge approaches and piers of the proposed bridge will have an impact on the existing wetlands. On the west side of Broad Run there is a forested swale that runs west to east into Broad Run along the project corridor. Shortening the bridge may impact the drainage swale.

Costs: The cost of the bridge is largely contingent on the length of the bridge and must be balanced with the costs associated with other impacts such as wetlands and the 100-year floodplain. Reduction of the bridge length will have greater impact to the existing wetlands and will require more wetland mitigation increasing those associated costs and may not be possible depending on the impact to the floodplain. Additional erosion and sediment control measures are required adjacent to environmentally sensitive areas such as wetlands and floodplains will also increase construction costs. The erosion and sediment control measures around the wetlands and floodplain will be inspected more frequently and maintained strictly during construction.

Schedule: Bridge construction will be the critical path for the Project, and the bridge design will impact the project completion date as the bridge design is optimized for the most cost-effective and feasible option. A longer bridge will require construction of additional piers, which will extend the design and construction schedules.

Construction Access: Saturated soil conditions from weather events and a water table that is close to existing grade will impact construction access. Access alongside the bridge will be required for equipment to operate after pier and abutment foundations are completed. Construction of the superstructure will require additional staging area outside the footprint of the bridge for aerial equipment to hoist materials.

MITIGATION – The AI/WR&A Team will mitigate these impacts through an innovative bridge design that does not increase the 100-year floodplain and minimizes the environmental impacts based on WR&A's previous experience. Construction in the floodplain will utilize stringent erosion and appropriate access.

H&H Analysis: Performing a preliminary H&H analysis during the RFP stage of the Project will ensure a cost-effective bridge design that will not increase the 100-year flood elevation and minimizes environmental impacts. This will also help maximize the time to obtain the environmental permits for impacts to the existing streams and wetlands.

On the VDOT Route 606 project, WR&A has developed detailed HEC-RAS modeling for Broad Run from the Horsepen Dam all the way to the Potomac River. The model covers this portion of Broad Run and will allow for quick evaluation of potential bridge design options.

WR&A has extensive experience working with FEMA floodplains at major crossings for VDOT. At Marumsco Creek the FEMA model was adjusted to account for updated survey and proposed conditions. On the Towlston Road over Rocky Run project innovative bridge design was used in conjunction with detailed scour protection. On the VDOT Route 606 project, WR&A developed detailed HEC-RAS modeling which was coordinated with VDOT and Loudoun County, who are currently updating the FEMA floodplain.

Design Experience and Approach: WR&A has extensive experience in developing bridge designs over streams and rivers within a FEMA Floodplain that does not increase the 100-year flood elevation, while minimizing impacts to the stream and associated wetlands. These efforts typically include evaluating bridge

alternatives, which focus on reducing the number of bridge piers in the stream and floodplain while providing the most economical bridge. Similar analysis was completed on the *I-81 bridges over the New River, Buffalo Creek and Maury River* to optimize the design.

- Maximize span lengths to reduce number of piers and minimize environmental impacts.
- Evaluate constructability and site access during the design stage. The project site conditions allow for larger beams to facilitate this strategy.
- The Project allows for the foundation to be constructed outside the stream.

Environmentally Responsible Construction: AI experience working within floodplains and streams allows our team to perform the necessary and required steps during design and construction to overcome these challenges. Access through the floodplain during construction will be limited to minimize the costs associated with installing and maintaining stringent E&S controls.

All AI field managers and superintendents complete stormwater pollution prevention training. With our field staff as the primary regulators of erosion and sediment controls, this training assists in environmentally responsible construction.

AI has experience working with in-stream construction and implementing stringent E&S controls to minimize the impacts of construction on environmentally sensitive sites. This experience includes in-stream construction on the *Route 29 NBL Bridge over Tye River Design-Build project*, where AI and VDOT worked together to minimize environmental impacts from the causeway, exceeding permit requirements.

Construction Access: Construction access will require soils stabilization or elevated access. A temporary crossing of Broad Run that minimizes impacts to the stream area will be explored during design. This access will allow optimal use of resources for bridge construction, alleviate concerns of sediment tracking on roads, and reduces scope of access road construction and maintenance.

AI installed a temporary access bridge to facilitate construction of two piers in the river on the Route 29 NBL Bridge over Tye River.

VDOT'S ROLE – VDOT's primary role will be reviewing the floodplain analysis to ensure the bridge design is in compliance with design requirements. We also anticipate VDOT will coordinate with Loudoun County in sharing of floodplain information for the Project.

GEOTECHNICAL CONDITIONS

DESCRIPTION – The Gloucester Parkway Extension project geotechnical conditions are identified as a risk because the Project is being constructed in a floodplain on new alignment over environmentally sensitive areas of Broad Run. During our field investigations, standing water was observed on approximately 80% of the site.

The proposed alignment of the Project is located within the Culpepper Basin. The alignment is primarily underlain by silt and sandstone of the Balls Bluff Formation with several diabase dikes mapped just to the west of Broad Run that parallel the stream in a north south direction. These dikes have metamorphosed the surrounding areas into what is known as Hornfels, a hard but brittle and fractured rock. More recent terrace deposits will be encountered within the Broad Run floodplain; however, these deposits will likely be relatively thin underlain by diabase or hornfels bedrock.

Based on our preliminary geotechnical analysis, potential design/construction issues include encountering hard bedrock and groundwater. Excavation to the west of Broad Run will likely encounter hard bedrock. Construction adjacent to Broad Run will likely encounter groundwater and unsuitable soils.

IMPACT – Geotechnical conditions will influence the bridge design based on foundation capacity and pier spacing. These will in turn determine the span length and depth of the superstructure. The final design will ultimately impact the construction schedule and cost. The ideal design length will provide the necessary balance between the length of the roadway and the bridge.

Pier foundation type, size, and quantity will determine the construction duration. Larger and deeper foundations may require special resources (i.e. cofferdams). Embankments at bridge approaches and below footings or retaining walls may require treatment to stabilize subgrade soils.

MITIGATION – The AI/WR&A Team will mitigate the challenging geotechnical conditions by designing foundations appropriate for the site conditions, treating subgrade soils to implement a cost-effective design, and providing the necessary resources to construct the Project in the floodplain.

Foundation Design: Additional geotechnical investigation will gather enough detailed information to optimize foundation type, size, and location. Additional piers in the floodplain will be minimized. Design of the foundations will be coordinated with construction means and methods that allow the shortest construction duration. Bridge foundations could be on spread footings a few feet down on underlying rock on relatively short driven piles.

WR&A's oversight of construction quality control for the Project will ensure field conditions meet design assumptions. Coordination of the QC Manager, ***Brian Henschel, P.E.*** with the Geotechnical Design Lead, ***Jeffrey Basford, P.E.*** will assist in this process during construction.

Subgrade Treatments: The quality of subgrade soils will be improved to facilitate a cost-effective design and may utilize geotextiles, geogrid, undercutting, select fill, or stabilization with lime/cement.

Construction Resources: Constructing a bridge over a stream in a floodplain requires specialty equipment. AI's resources include large cranes for erection of the superstructure over Broad Run in order to mitigate impacts to the stream. In addition, AI has a full inventory of concrete formwork, concrete placers, hydraulic cranes, and material handling equipment especially for bridge construction.

VDOT's Role – VDOT will provide recently gathered geotechnical exploration information with the Request for Proposals and review the bridge design and final geotechnical report.

UTILITY RELOCATIONS AND ADJUSTMENTS

DESCRIPTION – Existing utilities, both private and public utilities present risks associated with determining the cost responsibility of the private utility relocation and with the scheduling for relocation of the currently identified private and public utilities. The major utility risk on this Project will be the ability to design the bridge abutment B to not impact the DC Water existing 54" Sanitary Sewer Interceptor and coordinating the bridge design with the proposed 72" Sanitary Sewer Interceptor.

The utilities impacted by construction of the Project include:

- Loudoun Water Facilities (Water and Sanitary Sewer)
- DC Water Facilities (Sanitary Sewer)
- Loudoun Water Reclaimed Water Facilities
- Washington Gas Facilities
- MCI/WorldCom Fiber Optic Facilities
- Dominion Virginia Power Facilities
- Verizon Buried Telephone Facilities

Buried fiber optic and telephone lines, power poles, and telephone poles exist within the project limits and may be impacted by construction of the Parkway extension. At the intersections of Loudoun County Parkway and Pacific Boulevard, it is not known at this time if the facility owners have prior rights and if relocation/adjustment costs would be borne by the Project or by the facility owners. Identifying utility owners' prior rights is necessary to determine the cost responsibility of the required relocation.

Public utilities for this Project include facilities owned by Loudoun Water and DC Water. Loudoun Water facilities include a 10" Water Main and 8" Sanitary Sewer that cross the proposed Parkway at the project mid-point. In addition, they have existing water facilities and a reclaimed water line at the intersection of Gloucester Parkway and Loudoun County Parkway. Loudoun Water currently has a 72" Sanitary Sewer Interceptor under design that will cross the project limit west of the existing DC Water 54" Sanitary Sewer. The bridge design will need to incorporate the location of the proposed 72" Interceptor.

IMPACT – Utility coordination and relocation will impact the project schedule, cost, and ultimately the design 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
- Third-party inspection requirements during construction
- Ability to shut down existing facilities and costs for any pump around
- Bridge Abutment B location

54" Sanitary Sewer: Based on the preliminary design concept provided with the RFQ the 54" Sanitary Sewer is in conflict with the proposed Abutment B and associated retaining walls. The flexibility to move Abutment B will be limited by the hydraulic analysis of Broad Run. The existing 54" Sanitary Sewer under Abutment B may need to be relocated, which would require a costly temporary pump around while tie-ins are made.

72" Interceptor: The proposed 72" Interceptor crossing is in conflict with the proposed bridge due to the limited clearance under the bridge (approximately 9 ft.) and would likely require the proposed 72" sewer be encased to allow for future maintenance of the facility. Design and construction experience with large diameter sanitary sewer systems will be required.

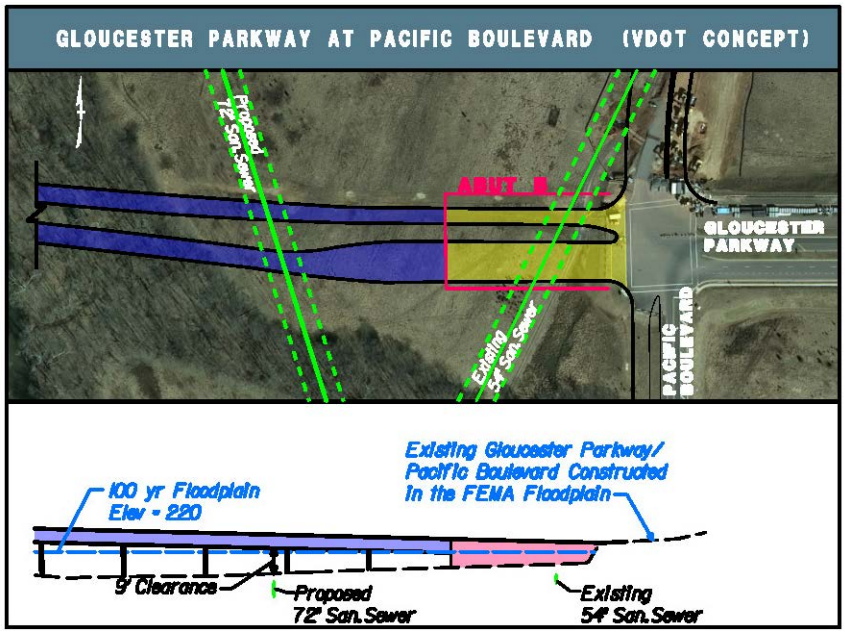


Figure 3.5.2: Major Utility Impacts*. The proposed 72" Interceptor and existing 54" Sanitary Sewer cross the proposed bridge alignment.*

MITIGATION – To maintain the proposed project schedule and minimize financial risk, the AI/WR&A Team, utility owners, VDOT and other stakeholders will collaborate to avoid the risks mentioned above.

Utility Task Force – Immediately upon award a Utility Task Force will be established, with a strong leader in ***Daniel Seli, P.E.*** assigned to push progress. Dan has managed the NOVA On-Call Utility Relocation Contract since 1996 and has extensive experience in the design of large diameter sanitary sewer facilities. This approach has proven successful on our past, large complicated projects. The task force will meet regularly as required to ensure proper coordination and that all issues are identified and resolved or escalated in a timely manner. The Task Force will confirm the location and prior rights of all existing utilities and review the As-Built information. Test pits will be excavated at potential areas of conflict to

accurately determine exact vertical and horizontal locations (SUE Level A). The Task Force will determine any special requirements of the facilities and evaluate the roadway, drainage and bridge designs to eliminate or reduce utility conflicts.

Leverage our Expertise: We will utilize our utility design, relocation coordination, and construction expertise to design and construct the Project with minimal impacts to the existing utilities and allow for construction to proceed on an aggressive, safe, and attainable schedule. Through our VDOT relocation contracts, we have experience designing the relocation of major sanitary sewer, fiber, power, phone, water, and gas facilities. At each stage of design utility owners will be involved to ensure that their design and construction requirements are being maintained. Existing VDOT policies and procedures will be followed including the proper completion of VDOT UT-9 forms and updates to the RUMS system.

Confirming Field Locations / Determine Prior Rights: During the RFP phase the exact location, type and size of the private and public utilities will have to be confirmed along with any special relocation requirements. This will include a complete a detailed analysis of the Broad Run floodplain to allow for a complete evaluation of the potential impact to the 54" Sanitary Sewer Interceptor at Abutment B. It is also imperative that determination of prior rights for private utilities is complete to determine if relocation costs will be the responsibility of the private utility owner or the Project.

Coordination to Minimize Impacts: The bridge and abutment design will avoid impacts to the 54" Sanitary Sewer if feasible. If the design cannot be modified to avoid the 54" Sanitary Sewer, then the facility will be relocated and all necessary easements and construction cost will be estimated.
The AI/WR&A Team will also coordinate with the Loudoun Water Facilities on the potential to modify the design of the 72" Interceptor to minimize cost to the Project by encasing the facility. WR&A has extensive experience in the design of large diameter sanitary sewer facilities and has effectively coordinated with utility owners on previous projects.

On VDOT NOVA District and Statewide Utility Relocation Contracts, WR&A has successfully reduced utility impacts through requesting drainage and roadway design changes.

Construction Experience: AI has extensive utility coordination experience where construction around and over large utilities was required on previous projects. 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 include oversight by utilities representative during construction to verify the appropriate caution is exercised. Protection measures may include timber mats for crossings.

VDOT'S ROLE – Following the proactive strategies listed above will minimize risk to both VDOT and the Project by addressing any design or construction requirements that would affect the project development. VDOT's role will be to complete the review of project design submittals for both in-plan and out-of-plan utilities. All utility relocation agreements entered into with the private utilities will be reviewed and approved by VDOT. The RUMS system will be maintained by the AI/WR&A Team for VDOT's use in tracking the Project.

3.2.6 Affiliated/Subsidiary Companies

ATTACHMENT 3.2.6

State Project No. 2150-053-052

Affiliated and Subsidiary Companies of the Offeror

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

☐ **The Offeror does not have any affiliated or subsidiary companies.**
☒ **Affiliated and/ or subsidiary companies of the Offeror are listed below.**

Relationship with Offeror (Affiliate or Subsidiary)	Full Legal Name	Address
Affiliate	American Infrastructure, Inc.	1805 Berks Road, P.O. Box 98, Worcester, PA 19490
Affiliate	Myers Aviation Company, LLC	1805 Berks Road, P.O. Box 98, Worcester, PA 19490
Affiliate	American Infrastructure-MD, Inc.	1805 Berks Road, P.O. Box 98, Worcester, PA 19490
Affiliate	Allan A. Myers, Inc.	1805 Berks Road, P.O. Box 98, Worcester, PA 19490
Affiliate	Allan A. Myers, Co.	1805 Berks Road, P.O. Box 98, Worcester, PA 19490
Affiliate	Allan A. Myers, LP	1805 Berks Road, P.O. Box 98, Worcester, PA 19490
Affiliate	American Infrastructure Investments, Inc.	1805 Berks Road, P.O. Box 98, Worcester, PA 19490
Affiliate	Devault Partners, LP	1805 Berks Road, P.O. Box 98, Worcester, PA 19490
Affiliate	Devault Crushed Stone Partners, Inc.	1805 Berks Road, P.O. Box 98, Worcester, PA 19490
Affiliate	The Myers Group, Inc.	1805 Berks Road, P.O. Box 98, Worcester, PA 19490
Affiliate	Compass Quarries, Inc.	1805 Berks Road, P.O. Box 98, Worcester, PA 19490
Affiliate	AI Transport Co	1805 Berks Road, P.O. Box 98, Worcester, PA 19490
Affiliate	Independence Construction Materials, Inc.	1805 Berks Road, P.O. Box 98, Worcester, PA 19490
Affiliate	ICM of Maryland, Inc.	1805 Berks Road, P.O. Box 98, Worcester, PA 19490
Affiliate	ICM of Pennsylvania, Inc.	1805 Berks Road, P.O. Box 98, Worcester, PA 19490

ATTACHMENT 3.2.6

State Project No. 2150-053-052

Affiliated and Subsidiary Companies of the Offeror

Affiliate	ICM of Delaware, Inc.	1805 Berks Road, P.O. Box 98, Worcester, PA 19490
Affiliate	D. M. Stoltzfus & Son, Inc.	1805 Berks Road, P.O. Box 98, Worcester, PA 19490
Affiliate	Elk Mills Partners, LP	1805 Berks Road, P.O. Box 98, Worcester, PA 19490
Affiliate	Cedar Hill Quarry Partners, LP	1805 Berks Road, P.O. Box 98, Worcester, PA 19490
Affiliate	Talmage Partners, LP	1805 Berks Road, P.O. Box 98, Worcester, PA 19490
Affiliate	440 Twin Oaks Drive, LP	1805 Berks Road, P.O. Box 98, Worcester, PA 19490
Affiliate	Jessup Asphalt Partners, LP	1805 Berks Road, P.O. Box 98, Worcester, PA 19490
Subsidiary	US 460 Mobility Partners, LLC	301 Concourse Blvd, Suite 300, Glen Allen, VA 23059

3.2.7 Debarment Forms

ATTACHMENT NO. 3.2.7(a)

CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project No.: 2150-053-052

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	6/25/13 Date	VP/GM Title

American Infrastructure - VA, Inc.
Name of Firm

ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 2150-053-052

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	June 24, 2013	Senior Vice President
Signature	Date	Title

Whitman, Requardt & Associates, LLP
Name of Firm

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS
(To be completed by a sub-consultant)

Project: 2150-053-052

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

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

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

Signature	June 19, 2013	Senior Vice President
	Date	Title

Volkert, Inc.
Name of Firm

ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 2150-053-052

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.

BM 06/25/13 CFO

Signature Date Title

BOWMAN CONSULTING GROUP, LTD.

Name of Firm

ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT LOWER TIER COVERED TRANSACTIONS

Project No.: 2150-053-052

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.

June 25, 2013	Principal Engineer
Signature / Date	Title

Engineering & Materials Technologies, Inc. (E.M. Tech)

Name of Firm

ATTACHMENT NO. 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 2150-053-052

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

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

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

_____ _____

Signature Date Title

Froehling & Robertson, Inc.

Name of Firm

3.2.8 VDOT Prequalification Evidence

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G303
AMERICAN INFRASTRUCTURE-VA, INC.
PREQ. EXP : 01/31/2014

--PREQ ADDRESS ----------
301 CONCOURSE BLVD
SUITE 300
GLEN ALLEN, VA 23059
PHONE : 804-290-8500
FAX : 804-418-7935

WORK CLASSES (LISTED BUT NOT LIMITED TO)
002 - GRADING
003 - MAJOR STRUCTURES
004 - ASPHALT CONCRETE PAVING
007 - MINOR STRUCTURES
013 - ROADWAY MILLING
171 - SURFACE TREATMENT

BUSINESS CONTACT: THURSTON, GINA
EMAIL: GINA.THURSTON@AMERICANINFRASTRUCTURE.COM

------DBE INFORMATION------

DBE TYPE : N/A
DBE CONTACT: N/A

==========

A729
AMERICAN PAVING FABRICS, INC.
PREQ. EXP : 01/31/2014

--PREQ ADDRESS ----------
6910 O'CONNER ROAD
HANOVER, MD 21076-0000
PHONE : 410-379-2209
FAX : 410-796-0272

WORK CLASSES (LISTED BUT NOT LIMITED TO)
171 - SURFACE TREATMENT

BUSINESS CONTACT: MARTIN-RONAGHAN, SELINA GINA
EMAIL: SELINA@AMERICANPAVINGFABRICS.COM

------DBE INFORMATION------

DBE TYPE : N/A
DBE CONTACT: N/A

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3.2.9 Surety Letter

ROSENBERG & PARKER®
SURETYBOND.COM
Philadelphia · Toronto

June 27, 2013

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

Re: American Infrastructure-VA, Inc.
Contract ID Number: C00104418DB68; State Project No.: 2150-053-052, UPC No.: 104418 – A Design-Build Project; Gloucester Parkway Extension From: Loudoun County Parkway To: Pacific Boulevard, Loudoun County, Virginia

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.

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

Sincerely,

Rosenberg & Parker, Inc.

Barry C. Rosenberg
Chairman

HCR/kgr

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

455 SOUTH GULPH ROAD • SUITE 400 • KING OF PRUSSIA, PENNSYLVANIA 19406
p 610.668.9100 • *p* 800.394.9200 • *f* 610.667.5200
info@suretybond.com • suretybond.com

3.2.10 SCC & DPOR

ATTACHMENT 3.2.10

State Project No. 2150-053-052

SCC and DPOR Information

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

SCC & DPOR INFORMATION FOR BUSINESSES (RFQ Sections 3.2.10.1 and 3.2.10.2)							
Business Name	SCC Information (3.2.10.1)			DPOR Information (3.2.10.2)			
	SCC Number	SCC Type of Corporation	SCC Status	DPOR Registered Address	DPOR Registration Type	DPOR Registration Number	DPOR Expiration Date
American Infrastructure-VA, Inc.	0113780-1	Corporation	Active	44209 Wade Drive Chantilly, VA 20152	Class A Contractors	2701009872	12/31/2014
Whitman, Requardt & Associates, LLP	K000382-4	Limited Liability Corporation	Active	801 South Caroline Street Baltimore, MD 21231	ARC, ENG, LS, LA	0407001676	12/31/2014
Whitman, Requardt & Associates, LLP				3701 Pender Drive, Suite 450 Fairfax, VA 22030	ENG	0411000134	02/28/2014
Whitman, Requardt & Associates, LLP				9030 Stony Point Parkway, Suite 220 Richmond, VA 23235	ENG	0411000133	02/28/2014
Whitman, Requardt & Associates, LLP				103 Paulette Circle, Suite C Lynchburg, VA 24502	ENG	0411000774	02/28/2014
Volkert, Inc.	F136659-2	Corporation	Active	5400 Shawnee Road Alexandria, VA 22312	ENG, LA	0407002610	12/31/2013
Bowman Consulting Group, LTD	0448198-2	Limited Company	Active	3951 Westerre Parkway, Suite 150 Richmond, VA 23233	ENG	0411000610	02/28/2014
Engineering & Materials Technologies, Inc.	0478633-1	Corporation	Active	7857 Coppermine Drive Manassas, VA 20109	ENG	0407005994	12/31/2013
Froehling & Robertson, Inc.	0027211-2	Corporation	Active	22923 Quic ksilver Drive, Suite 111 Sterling, VA 20166	ENG	0411000051	02/28/2014

ATTACHMENT 3.2.10

State Project No. 2150-053-052

SCC and DPOR Information

DPOR INFORMATION FOR INDIVIDUALS (RFQ Sections 3.2.10.3 and 3.2.10.4)						
Business Name	**Individual's Name**	**Office Location Where Professional Services will be Provided (City/State)**	**Individual's DPOR Address**	**DPOR Type**	**DPOR Registration Number**	**DPOR Expiration Date**
Whitman, Requardt & Associates, LLP	John P. Maddox	Richmond, VA	2825 Willbrook Drive Richmond, VA 23233	Professional Engineer	0402026613	01/31/2014
Volkert, Inc.	Gale M. Dickerson	Alexandria, VA	913 Ivey Creek Road Lancaster, VA 22503	Professional Engineer	0402020558	01/31/2014
Whitman, Requardt & Associates, LLP	Jeremy Schlussel	Richmond, VA	9105 Carrington Hills Court Glen Allen, VA 23060	Professional Engineer	0402033974	01/31/2014

ALERT to Virginia Corporations Regarding Solicitation from Corporate Records Se
can be found in the Bulletin Archive in the right-hand navigation pane.

06/26/13

CISM0180 CORPORATE DATA INQUIRY **08:12:57**

CORP ID: 0113780 - 1 STATUS: 00 ACTIVE STATUS DATE: 11/03/08
CORP NAME: **American Infrastructure-VA, Inc.**

DATE OF CERTIFICATE: 10/06/1967 PERIOD OF DURATION: INDUSTRY CODE: 00
STATE OF INCORPORATION: VA VIRGINIA STOCK INDICATOR: S STOCK
MERGER IND: CONVERSION/DOMESTICATION IND:
GOOD STANDING IND: Y MONITOR INDICATOR:
CHARTER FEE: MON NO: MON STATUS: MONITOR DTE:
R/A NAME: CT CORPORATION SYSTEM

STREET: 4701 COX RD STE 301 AR RTN MAIL:

CITY: GLEN ALLEN STATE : VA ZIP: 23060 6802
R/A STATUS: 5 B.E. AUTH IN VI EFF. DATE: 01/05/04 LOC : 143
ACCEPTED AR#: 212 16 0177 DATE: 10/10/12 HENRICO COUNTY
CURRENT AR#: 212 16 0177 DATE: 10/10/12 STATUS: A ASSESSMENT INDICATOR: 0

YEAR	FEES	PENALTY	INTEREST	TAXES	BALANCE	TOTAL SHARES
12	670.00					100,000

(Screen Id:/Corp_Data_Inquiry)

Commonwealth of Virginia

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. Peck

Clerk of the Commission

CIS0436

Commonwealth of Virginia

State Corporation 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, REQUARDT & 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

Joel H. Peck, Clerk of the Commission

CIS0505

COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

Office of the Clerk

May 28, 2013

CT CORPORATION SYSTEM
4701 COX RD STE 301
GLEN ALLEN, VA 23060-6802

RECEIPT

RE: WHITMAN, REQUARDT & ASSOCIATES, LLP

ID: K000382 - 4

DCN: 13-05-28-0509

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

GPACCEPT
CIS0363

ALERT to Virginia Corporations Regarding Solicitation from Corporate Records Se
can be found in the Bulletin Archive in the right-hand navigation pane.

06/26/13

CISM0180 CORPORATE DATA INQUIRY **08:14:37**

CORP ID: F136659 - 2 STATUS: 00 ACTIVE STATUS DATE: 01/21/99
CORP NAME: **Volkert, Inc.**

DATE OF CERTIFICATE: 01/21/1999 PERIOD OF DURATION: INDUSTRY CODE: 00
STATE OF INCORPORATION: AL ALABAMA STOCK INDICATOR: S STOCK
MERGER IND: S SURVIVOR CONVERSION/DOMESTICATION IND:
GOOD STANDING IND: Y MONITOR INDICATOR:
CHARTER FEE: 50.00 MON NO: MON STATUS: MONITOR DTE:
R/A NAME: CORPORATION SERVICE COMPANY

STREET: BANK OF AMERICA CENTER, 16TH FLOOR AR RTN MAIL:
1111 EAST MAIN ST.
CITY: RICHMOND STATE : VA ZIP: 23219
R/A STATUS: 5 B.E. AUTH IN VI EFF. DATE: 07/13/11 LOC : 216
ACCEPTED AR#: 213 01 4511 DATE: 12/17/12 RICHMOND CITY
CURRENT AR#: 213 01 4511 DATE: 12/17/12 STATUS: A ASSESSMENT INDICATOR: 0

YEAR	FEES	PENALTY	INTEREST	TAXES	BALANCE	TOTAL SHARES
13	100.00					2,250

(Screen Id:/Corp_Data_Inquiry)

ALERT to Virginia Corporations Regarding Solicitation from Corporate Records Se
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06/26/13

CISM0180 CORPORATE DATA INQUIRY **08:15:30**

CORP ID: 0448198 - 2 STATUS: 00 ACTIVE STATUS DATE: 07/23/10
CORP NAME: **BOWMAN CONSULTING GROUP, LTD.**

DATE OF CERTIFICATE: 06/07/1995 PERIOD OF DURATION: INDUSTRY CODE: 00
STATE OF INCORPORATION: VA VIRGINIA STOCK INDICATOR: S STOCK
MERGER IND: CONVERSION/DOMESTICATION IND:
GOOD STANDING IND: Y MONITOR INDICATOR:
CHARTER FEE: 700.00 MON NO: MON STATUS: MONITOR DTE:
R/A NAME: ROBERT A HICKEY

STREET: 3863 CENTERVIEW DR STE 300 AR RTN MAIL:

CITY: CHANTILLY STATE : VA ZIP: 20151
R/A STATUS: 2 OFFICER EFF. DATE: 05/13/04 LOC : 129
ACCEPTED AR#: 213 52 1753 DATE: 05/07/13 FAIRFAX COUNTY
CURRENT AR#: 213 52 1753 DATE: 05/07/13 STATUS: A ASSESSMENT INDICATOR: 0

YEAR	FEES	PENALTY	INTEREST	TAXES	BALANCE	TOTAL SHARES
13	1,700.00					360,000

(Screen Id:/Corp_Data_Inquiry)

ALERT to Virginia Corporations Regarding Solicitation from Corporate Records Se
can be found in the Bulletin Archive in the right-hand navigation pane.

06/26/13

CISM0180 CORPORATE DATA INQUIRY **08:16:52**

CORP ID: 0478633 - 1 STATUS: 00 ACTIVE STATUS DATE: 01/29/97
CORP NAME: **ENGINEERING & MATERIALS TECHNOLOGIES, INC.**

DATE OF CERTIFICATE: 01/29/1997 PERIOD OF DURATION: INDUSTRY CODE: 70
STATE OF INCORPORATION: VA VIRGINIA 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: SHAHZAD S MOOSA

STREET: 7857 COPPERMINE DR AR RTN MAIL:

CITY: MANASSAS STATE : VA ZIP: 20109
R/A STATUS: 2 OFFICER EFF. DATE: 07/20/06 LOC : 176
ACCEPTED AR#: 213 01 1156 DATE: 11/28/12 PRINCE WILLIAM
CURRENT AR#: 213 01 1156 DATE: 11/28/12 STATUS: A ASSESSMENT INDICATOR: 0

YEAR	FEES	PENALTY	INTEREST	TAXES	BALANCE	TOTAL SHARES
13	100.00					5,000

(Screen Id:/Corp_Data_Inquiry)

ALERT to Virginia Corporations Regarding Solicitation from Corporate Records Se
can be found in the Bulletin Archive in the right-hand navigation pane.

06/26/13

CISM0180 CORPORATE DATA INQUIRY **08:16:12**

CORP ID: 0027211 - 2 STATUS: 00 ACTIVE STATUS DATE: 11/13/09

CORP NAME: **FROEHLING & ROBERTSON, INCORPORATED**

DATE OF CERTIFICATE: 10/11/1924 PERIOD OF DURATION: INDUSTRY CODE: 00

STATE OF INCORPORATION: VA VIRGINIA STOCK INDICATOR: S STOCK

MERGER IND: CONVERSION/DOMESTICATION IND:

GOOD STANDING IND: Y MONITOR INDICATOR:

CHARTER FEE: 2480.00 MON NO: MON STATUS: MONITOR DTE:

R/A NAME: WILLIAM H HOOFNAGLE III

STREET: 1900 ONE JAMES CENTER AR RTN MAIL:
901 E CARY ST

CITY: RICHMOND STATE : VA ZIP: 23219

R/A STATUS: 4 ATTORNEY EFF. DATE: 09/21/11 LOC : 216

ACCEPTED AR#: 212 14 0123 DATE: 08/29/12 RICHMOND CITY

CURRENT AR#: 212 14 0123 DATE: 08/29/12 STATUS: A ASSESSMENT INDICATOR: 0

YEAR	FEES	PENALTY	INTEREST	TAXES	BALANCE	TOTAL SHARES
12	1,700.00					1,100,000

(Screen Id:/Corp_Data_Inquiry)

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
12-31-2014

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

NUMBER
2701009872

BOARD FOR CONTRACTORS
CLASS A CONTRACTOR
CLASSIFICATIONS H/H

AMERICAN INFRASTRUCTURE-VA INC
44209 WADE DRIVE
CHANTILLY, VA 20152

Gordon N. Dixon, Director

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(POCKET CARD)

COMMONWEALTH OF VIRGINIA
CLASS A BOARD FOR CONTRACTORS
CONTRACTOR

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

AMERICAN INFRASTRUCTURE-VA INC
44209 WADE DRIVE
CHANTILLY, VA 20152

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(DETACH HERE)

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
9960 Mayland Dr., Suite 400, Richmond, VA 23233

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DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

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

EXPIRES ON
12-31-2013

NUMBER
0407001676

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

PROFESSIONS: ARC, ENG, LS, LA

WHITMAN, REQUARDT AND ASSOCIATES LLP
801 SOUTH CAROLINE STREET
BALTIMORE, MD 21231

Gordon N. Dixon, Director

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COMMONWEALTH OF VIRGINIA

BOARD FOR APELSCIDLA
BUSINESS ENTITY REGISTRATION
NUMBER: 0407001676 EXPIRES: 12-31-2013
PROFESSIONS: ARC, ENG, LS, LA
WHITMAN, REQUARDT AND ASSOCIATES LLP
801 SOUTH CAROLINE STREET
BALTIMORE, MD 21231

(FOLD)

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
9960 Mayland Dr., Suite 400, Richmond, VA 23233

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DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
02-28-2014

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

NUMBER
0411000134

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

Gordon N. Dixon, Director

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(POCKET CARD)

COMMONWEALTH OF VIRGINIA
BOARD FOR APELSCIDLA
BUSINESS ENTITY BRANCH OFFICE REGISTRATION
NUMBER: 0411000134 EXPIRES: 02-28-2014
PROFESSIONS: ENG
WHITMAN REQUARDT AND ASSOCIATES
3701 PENDER DRIVE
SUITE 450
FAIRFAX, VA 22030-6045

(FOLD)

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DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
9960 Mayland Dr., Suite 400, Richmond, VA 23233

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DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
02-28-2014

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

NUMBER
0411000133

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
SUITE 220
RICHMOND, VA 23235

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Gordon N. Dixon, Director

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(POCKET CARD)

COMMONWEALTH OF VIRGINIA

BOARD FOR APELSCIDLA
BUSINESS ENTITY BRANCH OFFICE REGISTRATION
NUMBER: 0411000133 EXPIRES: 02-28-2014
PROFESSIONS: ENG
WHITMAN REQUARDT AND ASSOCIATES
9030 STONY POINT PKWY
SUITE 220
RICHMOND, VA 23235

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(DETACH HERE)

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
9960 Mayland Dr., Suite 400, Richmond, VA 23233

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DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
02-28-2014

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

NUMBER
0411000774

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

PROFESSIONS: ENG

WHITMAN REQUARDT AND ASSOCIATES LLP
103 PAULETTE CIRCLE
SUITE C
LYNCHBURG, VA 24502

Gordon N. Dixon, Director

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(POCKET CARD)

COMMONWEALTH OF VIRGINIA
BOARD FOR APELSCIDLA
BUSINESS ENTITY BRANCH OFFICE REGISTRATION
NUMBER: 0411000774 EXPIRES: 02-28-2014
PROFESSIONS: ENG
WHITMAN REQUARDT AND ASSOCIATES LLP
103 PAULETTE CIRCLE
SUITE C
LYNCHBURG, VA 24502

(FOLD)

(DETACH HERE)

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
9960 Mayland Dr., Suite 400, Richmond, VA 23233

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DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
12-31-2013

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

NUMBER
0407002610

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

PROFESSIONS: ENG, LA

VOLKERT INC
5400 SHAWNEE RD
STE 301
ALEXANDRIA, VA 22312

Gordon N. Dixon, Director

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
02-28-2014

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

NUMBER
0411000610

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

PROFESSIONS: ENG

BOWMAN CONSULTING GROUP LTD
3951 WESTERRE PARKWAY
SUITE 150
RICHMOND, VA 23233

Gordon N. Dixon, Director

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(POCKET CARD)

COMMONWEALTH OF VIRGINIA

BOARD FOR APELSCIDLA
BUSINESS ENTITY BRANCH OFFICE REGISTRATION
NUMBER: 0411000610 EXPIRES: 02-28-2014
PROFESSIONS: ENG
BOWMAN CONSULTING GROUP LTD
3951 WESTERRE PARKWAY
SUITE 150
RICHMOND, VA 23233

(FOLD)

(DETACH HERE)

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
9960 Mayland Dr., Suite 400, Richmond, VA 23233

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DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
12-31-2013

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

Gordon N. Dixon, Director

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

(POCKET CARD)

COMMONWEALTH OF VIRGINIA

BOARD FOR APELSCIDLA
BUSINESS ENTITY REGISTRATION
NUMBER: 0407005994 EXPIRES: 12-31-2013
PROFESSIONS: ENG
ENGINEERING & MATERIALS TECHNOLOGIES, INC
7857 COPPERMINE DR
MANASSAS, VA 20109

(FOLD)

(DETACH HERE)

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
9960 Mayland Dr., Suite 400, Richmond, VA 23233

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DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
02-28-2014

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

NUMBER
0411000051

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

PROFESSIONS: ENG

FROEHLING & ROBERTSON, INC
22923 QUICKSILVER DR STE 111
STERLING, VA 20166

Gordon N. Dixon, Director

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

(POCKET CARD)

COMMONWEALTH OF VIRGINIA
BOARD FOR APELSCIDLA
BUSINESS ENTITY BRANCH OFFICE REGISTRATION
NUMBER: 0411000051 EXPIRES: 02-28-2014
PROFESSIONS: ENG
FROEHLING & ROBERTSON, INC
22923 QUICKSILVER DR STE 111
STERLING, VA 20166

(FOLD)

(DETACH HERE)

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
9960 Mayland Dr., Suite 400, Richmond, VA 23233

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DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

EXPIRES ON
01-31-2014

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

NUMBER
0402026613

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

JOHN PATRICK MADDOX
2825 WILLBROOK DRIVE
RICHMOND, VA 23233

Gordon N. Dixon, Director

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JOHN PATRICK MADDOX
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GALE MACKEY DICKERSON
913 IVEY CREEK ROAD
LANCASTER, VA 22503

Gordon N. Dixon, Director

DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION
COMMONWEALTH OF VIRGINIA

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3.3.1 Key Personnel Resumes

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title: **AARON T. MYERS, VICE PRESIDENT/GENERAL MANAGER**

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

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

d. Years experience: With this Firm **10** Years With Other Firms **2** Years

Please list chronologically (most recent experience first) your employment history, position and general experience or fields of practice for the last fifteen(15) years. (NOTE: If you have less than 15 years of experience, please list all of your experience for those years you have worked.):

AMERICAN INFRASTRUCTURE, VICE PRESIDENT/GENERAL MANAGER; 2010 - PRESENT: Mr. Myers is actively engaged and directly responsible for all aspects of AI's Design-Build (DB) and Design-Bid-Build (DBB) projects in Virginia. Throughout the design-build process for any project in Virginia, Mr. Myers participates in milestone design and construction meetings and ultimately approves all design and construction means and methods. Because of the experience and leadership Mr. Myers brings to the design-build process, he will serve as Design-Build Project Manager on key projects critical to AI's growth strategy and overall business plan success. In the past four years, he has participated in over 30 DB pursuits and has secured three VDOT DB projects (Middle Ground Boulevard, Elm Avenue and Route 460 Corridor Improvements).

AMERICAN INFRASTRUCTURE, DBPM/CONSTRUCTION MANAGER; 2009-2011: Mr. Myers managed the construction phase of the Airport Connector Road D/B project in Richmond, a $39M project for Transurban with oversight by VDOT and FHWA. Mr. Myers was responsible for all on-site construction activities, construction quality control, and contract administration. During his tenure, Mr. Myers functioned as DBPM as internal staff changes necessitated his full time attention to this project. During construction, he worked closely with the designer of record to complete and gain approval of plan revisions.

AMERICAN INFRASTRUCTURE, PRECONSTRUCTION PROJECT MANAGER; 2008-2009: Mr. Myers was responsible for business development, estimating, and purchasing for all of AI's DB and DBB projects in Virginia, including the Richmond Airport Connector Road D/B Project. He managed a group of 16 salaried personnel to identify, estimate, and procure construction projects. His focus on design-build opportunities included managing the complete process for providing qualifications, technical, and price proposals for seven D/B projects over $20M. Pursuits awarded to AI under his leadership include the VDOT Middle Ground Boulevard and I-581/Elm Avenue Interchange D/B projects.

AMERICAN INFRASTRUCTURE, CONSTRUCTION MANAGER; 2003-2008: Mr. Myers was responsible for managing a staff of up to eight engineers and superintendents on as many as four simultaneous projects. In addition to managing the AI staff, Mr. Myers was the main point of contact with owners and other stakeholders. He participated in the selection of subcontractors and managed the customer satisfaction process for each of his projects. Projects completed by Mr. Myers include Mulligan Road for FHWA in Fairfax County and Quantico Infrastructure Reconstruction at the marine base. Quantico was a unique project with Clark Residential Properties having the overall design-build contract for modernization of military housing. Within Clark's design-build contract, AI had a line item design-build contract for Division 2 scope of work. The AI design-build effort was led by Mr. Myers from design through execution in the field.

SKANSKA, DESIGN-BUILD ENGINEER/MANAGER FOR COOPER RIVER BRIDGE PROJECT; 2001-2003: Mr. Myers was responsible for coordination/approval of engineer/contractor design drawings for construction (over 2200 drawings), schedule management, quantity takeoff, document control, budget revisions, and plan quality control for this $500M DB project. Following design, he managed the procurement, schedule, budget, safety, and production for the erection of over 200 - 80 ton concrete girders associated with the Charleston Interchange.

PROFESSIONAL ASSOCIATION, VIRGINIA TRANSPORTATION CONSTRUCTION ALLIANCE (VTCA): Mr. Myers is currently serving as a member of the VDOT Design-Build Committee and the Contractor Leadership Committee.

EXPERIENCE RELEVANT TO THE PROJECT

- 12 years of D/B experience
- 4 VDOT D/B projects
- Complex bridge construction
- Design / Construction Oversight
- Quality management
- Safety

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:
Virginia Polytechnic Institute and State University – Blacksburg, VA/B.S./2000/Civil Engineering

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

Erosion and Sediment Control Contractor Certification #5112C

g. Document the extent and depth of your experience and qualifications relevant to the Project.
   1. *Note your specific responsibilities and authorities for each assignment, 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 assignment.*

(List at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.)

VDOT ROUTE 29 NBL BRIDGE REPLACEMENT OVER TYE RIVER DESIGN-BUILD – AMHERST, VA ($6.8M)

1. Mr. Myers provided hands-on pre-bid, design and construction management support and oversight to deliver this project successfully and seven month early. The project replaced the existing structurally deficient northbound lane bridge with a 650' long, five-span, two-lane bridge approximately 55' high over the Tye River. Under Mr. Myer's leadership, the temporary detour that shifted traffic to the Southbound bridge was removed nine months ahead of schedule. He also was a critical member of the bridge design and construction team, developing solutions to bridge foundation, erection and demolition efforts. Through daily MOT maintenance and an effective TMP plan, there were no traffic incidents throughout the duration of construction. Mr. Myers actively participated in formal partnering / VDOT meetings to ensure the project was adequately staffed and construction progressed as planned.

Relevance to the Project
- ✓ *VDOT DB project completed seven months ahead of schedule*
- ✓ *$1M under VDOT's budget*
- ✓ *Foundation design / construction*
- ✓ *Bridge construction*
- ✓ *In-stream construction*

2. *American Infrastructure; GM / Construction Manager* 3. *January 2011 – April 2012*

VDOT MIDDLE GROUND BOULEVARD EXTENSION DESIGN-BUILD PROJECT, NEWPORT NEWS, VA ($32.5)

1. Mr. Myers is providing management support and oversight to deliver this project successfully to VDOT. To ensure customer satisfaction and prompt issue resolution, Mr. Myers is engaged in formal partnering for the project. For specific items, Mr. Myers checks in regularly with VDOT, as well as to confirm overall project progress. The project scope includes construction of a 1.2 mile connector roadway, including a bridge over the CSX railway, and the widening of two highly congested primary roadways. The project is entering the next phase of soil consolidation and is on schedule to be completed four months ahead of schedule.

Relevance to the Project
- ✓ *VDOT DB project*
- ✓ *New alignment roadway*
- ✓ *Bridge construction*
- ✓ *Soft soils*
- ✓ *Utility coordination*

2. *American Infrastructure; General Manager* 3. *June 2011 – August 2014 (anticipated)*

AIRPORT CONNECTOR ROAD DESIGN-BUILD PROJECT, RICHMOND, VA ($39M)

1. Mr. Myers was responsible for all construction activities, construction quality control, and contract administration for the 1.6 miles of four-lane roadway that provides motorists with direct access to the Richmond International Airport from Route 895, including a bridge over CSXT railroad. He managed day to day construction activities, formal partnering sessions and weekly coordination with the Owner, including VDOT and FHWA. He was also responsible for design oversight of construction revisions and issuing revised AFC's by the Owner, VDOT and FHWA. Additionally, Mr. Myers managed coordination with third parties including Henrico County, Dominion Power, CSX and the Richmond Airport. The project finished two months ahead of schedule, on-budget, and with zero recordable incidents during the 152,546 manhours worked. The project received the DBIA Design-Build Merit Award for Transportation in 2011, and received an overall rating of "Extremely Satisfied" (AI Customer Survey 2010).

Relevance to the Project
- ✓ *DB with VDOT Oversight*
- ✓ *New alignment roadway*
- ✓ *Bridge construction*
- ✓ *Environmental resources*
- ✓ *Geotechnical challenges*
- ✓ *Bridge length shortened*

2. *American Infrastructure; DBPM / Construction Manager* 3. *November 2008 –March 2011*

QUANTICO INFRASTRUCTURE RECONSTRUCTION DESIGN-BUILD PROJECT, QUANTICO, VA ($31M)

1. Mr. Myers was responsible for overall construction activities for this design-build/CM-at-risk contract with a guaranteed maximum price. This project consisted of demolition, earthwork, soils stabilization, utility installation, and roadway construction on over 490 acres. Mr. Myers was responsible for managing all aspects of construction, quality control, and contract administration. Each pad turnover dates was met for all nine sections despite tight timelines. Weekly design reviews provided more efficient solutions to grading, paving, and utility relocations. For the highly-sensitive utility relocations that were required, AI test-pitted the utilities before the design was complete to provide a clear and concise plan that minimized the time required to execute the work. Through partnering with the geotechnical engineer and the client, AI utilized innovative solutions for lime-stabilizing high-plasticity soils to use them onsite which kept the project on schedule.

Relevance to the Project
- ✓ *Design-build/CM-at-risk*
- ✓ *New alignment roadway*
- ✓ *Utility coordination*
- ✓ *Geotechnical challenges*

2. *American Infrastructure, Construction Manager* 3. *2003 – 2008*

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title: **GALE DICKERSON, P.E., CONSTRUCTION MANAGER**

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

c. Name of Firm with which you are now associated:
VOLKERT, INC.

d. Years experience: With this Firm **3.5** Years With Other Firms **26** Years

Please list chronologically (most recent experience first) your employment history, position and general experience or fields of practice for the last fifteen(15) years. (NOTE: If you have less than 15 years of experience, please list all of your experience for those years you have worked.):

VOLKERT, INC., CONSTRUCTION MANAGER; 2009 - PRESENT: Ms. Dickerson is responsible for management of construction inspection projects including the supervision of inspection personnel, QA activities including preparatory inspection meetings, and resolution of nonconformance issues to assure compliance with VDOT standards and client satisfaction. She works collaboratively with VDOT, engineers, and contractors to resolve design, construction, and quality issues.

VDOT, FREDERICKSBURG DISTRICT, AREA CONSTRUCTION ENGINEER; 2004 - 2009: Ms. Dickerson was responsible for the direct oversight and management of contract construction for a wide range of projects related to highways, structures, drainage and maintenance in 11 counties.

VDOT, MATERIALS DIVISION, GEOTECHNICAL ENGINEER/ PROGRAM MANAGER; 2003 - 2004: Ms. Dickerson managed operation of the geotechnical and soils lab. She also confirmed compliance with ASTM & Virginia Testing Methods. In addition, Ms. Dickerson provided guidance and direction to 9 district materials sections

VDOT, MAINTENANCE & CONSTRUCTION DIVISIONS, IMMS PROJECT MANAGER; 1996 - 2003: Ms. Dickerson identified and assigned work tasks to project team members. She developed and monitored budgets, schedules, and project plans, and prepared monthly reports.

SUMMARY OF RELEVANT EXPERIENCE

- 25 Years of Experience
- QC Monitoring
- QAM on 3 VDOT DB Projects
- QAM on 2 AI DB Projects
- Bridge construction inspection

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:
Virginia Polytechnic Institute and State University – Blacksburg, VA/B.S./1982/Civil Engineering
Graduate courses in Systems Engineering, Civil Engineering, and Management at Virginia Tech., UVA, and VCU

f. Active Registration: Year First Registered/ Discipline/VA Registration #:
1990/Professional Engineer/ Virginia #20588

g. Document the extent and depth of your experience and qualifications relevant to the Project.
1. *Note your specific responsibilities and authorities for each assignment, 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 assignment.*

(List at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.)

VDOT MIDDLE GROUND BOULEVARD DESIGN-BUILD PROJECT – NEWPORT NEWS, VA ($32.5M)

1. Ms. Dickerson is responsible for QA Management of testing and inspection services to confirm that construction, material testing, and sampling performed by the DB QC inspectors are in accordance with the contract requirements, including the VDOT IPD Design-Build Manual and the "approved for construction" plans and specifications. She manages the QA team and the QA/QC plan for the project. Her other responsibilities include the documentation of construction activities and acceptance of materials; verifying material certifications; monitoring and inspecting bridge beam, deck and substructure placements; and verifying that QC inspectors properly test engineering fills and complete submittal reviews. The project includes a new four-lane roadway connecting Jefferson Avenue to Warwick Boulevard, a bridge over the CSX Railroad, a turn lane and signal modifications, and traffic control installation.

Relevance to the Project
- ✓ *QAM for VDOT DB project*
- ✓ *AI project*
- ✓ *Bridge construction inspection*
- ✓ *QC monitoring*
- ✓ *Utility relocation*

2. *Volkert; Quality Assurance Manager* 3. *Aug.2012 – Anticipated Winter 2014*

VDOT ROUTE 29 NBL BRIDGE OVER TYE RIVER DESIGN-BUILD PROJECT – AMHERST AND NELSON COUNTIES, VA, ($6.7M)

1. Ms. Dickerson provided QA Management services during the design and construction of this new, 0.4-mile, 2-lane, prestressed-concrete girder bridge to replace a structurally deficient steel-girder bridge on the northbound lanes of Route 29. The project also raised the roadway profile to match the profile of the southbound bridge. Ms. Dickerson confirmed compliance with VDOT standards and developed the QA/QC plan, testing matrix, and inspection checklists for presentation to VDOT. She coordinated with VDOT's project manager and staff and IA/IV inspectors. To confirm compliance and avoid potential delays, Ms. Dickerson coordinated the required submissions, documents, and approvals well in advance of each work activity. Her responsibilities included preparation of the QA testing plan, review and approval of the QC testing plan, supervision of QA testing technicians, coordination with the testing laboratory, and review of testing results. She evaluated material documentation from suppliers to confirm compliance and worked with the construction QC team to anticipate and resolve field issues before schedule and budget were affected. Ms. Dickerson also prepared noncompliance reports, approved nonconformance recovery plans, and monitored corrective actions and retests.

Relevance to the Project
- ✓ *QAM for VDOT DB project*
- ✓ *AI project*
- ✓ *Bridge construction inspection*
- ✓ *QC monitoring*
- ✓ *In-stream foundation construction*

2. *Volkert; Quality Assurance Manager* 3. *Feb. 2010 – April 2012*

VDOT REPLACEMENT OF ROUTE 61 OVER THE NEW RIVER DESIGN-BUILD PROJECT – NARROWS, VA ($22M)

1. Ms. Dickerson is responsible for QA Management during for the construction of this new, two-lane, pre-stressed concrete beam, Bulb-T bridge that is replacing a structurally deficient bridge. She developed the QA/QC plan, testing matrix, and inspection checklists for presentation to VDOT. She coordinates with VDOT project manager and staff and OIA/OVST inspectors. She informs the contractor of required submissions, documents, and approvals and confirming compliance to help avoid potential delays and manages QA inspection and materials testing. Ms. Dickerson also evaluates material documentation from suppliers to confirm compliance with specifications, applies CT numbers, and tracks them. She also confirms accurate maintenance of testing documentation and leads QA meetings prior to major work activities. Working with the construction QC Team, she helps anticipate and resolve field issues before schedule and budget are affected. She also prepares noncompliance reports and approves nonconformance recovery plans, monitors corrective actions, and works with contractor on plan.

Relevance to the Project
- ✓ *QAM for VDOT DB project*
- ✓ *Developed overall QA/QC plan*
- ✓ *Bridge construction inspection*

2. *Volkert; Quality Assurance Manager* 3. *Jan.2011 – Anticipated Oct.2013*

VDOT ROUTE 33 ELTHAM BRIDGE REPLACEMENT AND ROADWAY RECONSTRUCTION – WEST POINT, VA($95.6M)

1. Ms. Dickerson managed the construction activities associated with the reconstruction of a 2.395-mile segment of a primary roadway through a downtown corridor as well as the replacement of the Route 33 Eltham Bridge over the Pamunkey River. The project included a new four-lane bridge and the widening and reconstruction of Route 33 through West Point from three to five lanes. Ms. Dickerson provided updates at the weekly town meeting, worked closely with the affected businesses, provided additional business location signage in the construction corridor, and provided media updates as construction phases changed. A partnering approach was used to build collaborative working relationships and establish a communication protocol to facilitate an efficient problem resolution process. She also monitored and analyzed schedules and budgets, coordinated with local and FHWA government officials and agencies, checked documentation.

Relevance to the Project
- ✓ *VDOT Project*
- ✓ *Urban area bridge project*
- ✓ *Construction quality oversight*

2. *VDOT; Area Construction Engineer* 3. *Dec. 2004 – Feb.2008*

VDOT ROUTE 221 REALIGNMENT – ROANOKE, VA ($20M)

1. Ms. Dickerson managed the construction engineering inspections services for this ¾ mile widening project. Features include excavation and blasting, environmental, horizontal slope drains, concurrent construction of three bridges, temporary lane closures, and public outreach through five construction phases. Ms. Dickerson established partnering with VDOT, FHWA, local officials and utility providers. She oversaw materials testing; and monitored schedule, budget, work zone traffic controls, and compliance with federal regulations. Ms. Dickerson also oversaw documentation management and compliance to the FHWA's reporting requirements.

Relevance to the Project
- ✓ *VDOT roadway widening project*
- ✓ *Coordinated extensive utility relocations*

2. *Volkert; Construction Manager* 3. *Sept. 2010 – Anticipated Aug. 2013*

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title: **JOHN MADDOX, P.E., SENIOR VICE PRESIDENT**

b. Project Assignment: **DESIGN MANAGER**

c. Name of Firm with which you are now associated:
WHITMAN, REQUARDT AND ASSOCIATES, LLP

d. Years experience: With this Firm **18** Years With Other Firms **10** Years

Please list chronologically (most recent experience first) your employment history, position and general experience or fields of practice for the last fifteen (15) years. (NOTE: If you have less than 15 years of experience, please list all of your experience for those years you have worked.):

WHITMAN, REQUARDT AND ASSOCIATES, LLP, VARIOUS POSITIONS; 1995 - PRESENT:

Mr. Maddox has served as *Design Manager* on VDOT projects continuously from August 1997 to the present including:

- Route I-81 Bridge over the New River and Improvements to Exit 105 – Design Manager – 2011-Present ($60M)
- Route 123 and Route 1 Interchange – NOVA District Design Manager – 2007-Present ($70M)
- VDOT NOVA District Location and Design On-Call Contract – Design Manager – 2008-Present
- Fairfax County Parkway Widening and Interchange at Fair Lakes Parkway – NOVA District Design Manager – 2001-Present ($44M)
- VDOT Statewide Location and Design On-Call Contract – Design Manager – 2008-2011
- Route I-81 Widening and Bridge Replacement over Buffalo Creek – Design Manager – 1999-2007 ($27M)
- Route I-81 Widening and Bridge Replacement over Maury River – Design Manager – 1999-2006 ($18M)
- Route 29 Bypass Sweet Briar Interchange – Design Manager – 1996-2005 ($35M)

SUMMARY OF RELEVANT EXPERIENCE

- 28 years of Design experience
- 23 years of experience as Design Manager
- Design QA/QC Oversight
- 12 yrs VDOT NOVA experience
- Design Manager on four major bridge projects in Virginia within the last 10 years.
- Currently working on two Design-Build projects
- Design reviews
- Constructability reviews

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:
West Virginia Institute of Technology (is now a division of West Virginia University) – Montgomery, West Virginia/B.S./1985/Civil Engineering

f. Active Registration: Year First Registered/ Discipline/VA Registration #:
Professional Engineer/Virginia/1996/#026613

g. Document the extent and depth of your experience and qualifications relevant to the Project.
1. *Note your specific responsibilities and authorities for each assignment, 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 assignment.*

(List at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.)

ROUTE 123 (OX ROAD) OVER CAMPUS DRIVE – FAIRFAX COUNTY, VA – GEORGE MASON UNIVERSITY DESIGN-BUILD ($13M) – SUBCONSULTANT

1. Mr. Maddox is the Design Manager for WR&A's portion of this Design-Build project that will connect the east and west campuses of GMU via a new connector road. He was responsible for managing the design of all roadway and bridge design elements on Route 123 including a four-lane on-site detour, roadway approaches, and shared-use path and the bridge. The bridge structure will be a 90-foot simple span VDOT Bulb-T bridge supported by semi-integral abatements with an aesthetic finish to fit the proposed structure into the campus setting. Mr. Maddox also managed the geotechnical design, and utility coordination (Verizon, Dominion Power, Cox Communications, gas) for the entire project. Additionally, he provided oversight for the Construction Quality Assurance Management during construction.

Relevance to the Project
- ✓ *Design-build*
- ✓ *Bridge design*
- ✓ *Roadway approaches*
- ✓ *Utility coordination*

2. *Whitman, Requardt and Associates, LLP; Design Manager* 3. *Sept. 2012 – Est. July 2014 (Under Const.)*

VDOT I-81 BRIDGE REPLACEMENTS OVER BUFFALO CREEK – ROCKBRIDGE COUNTY, VA ($27M)

1. Mr. Maddox served as the Design Manager for this project, which included one mile of approach reconstruction, widening of the interstate and the replacement of the existing two-lane bridges over Buffalo Creek. The two new bridges have three lanes with 14-foot shoulders and consist of two four-span continuous steel girders with a total length of 635 ft. (NBL) and 570 ft. (SBL); with pier heights up to 110 ft. The innovative design element of locating the deck joints at the abutments eliminated all joints over the steel girders and reduced future maintenance costs. Mr. Maddox provided oversight and coordination for all elements of the project including roadway, hydraulic, SWM, structural, traffic engineering, permits, geotechnical and public involvement.

Relevance to the Project
- ✓ *FEMA floodplain analysis*
- ✓ *Complex bridge design*
- ✓ *Geotechnical design*
- ✓ *Roadway approaches*

2. *Whitman, Requardt & Associates, LLP;– Design Manager* 3. *Aug. 1999 – Dec. 2007*

VDOT I-81 BRIDGE REPLACEMENTS OVER MAURY RIVER – ROCKBRIDGE COUNTY, VA ($18M)

1. Mr. Maddox was the Design Manager for this project, which included one mile of approach reconstruction, widening of the interstate and the replacement of the existing two-lane bridges over Maury River. The two new bridges have three lanes with 14-foot shoulders and consist of two continuous steel girder bridges the NBL Bridge has five spans and its total length is 825 ft., and the SBL Bridge has four spans and its total length is 743 ft. The innovative design element of locating the deck joints at the abutments eliminated all joints over the steel girders and reduced future maintenance costs. Mr. Maddox provided oversight and coordination for all elements of the project including roadway, hydraulic, SWM, structural, traffic engineering, permits, geotechnical and public involvement.

Relevance to the Project
- ✓ *FEMA floodplain analysis*
- ✓ *Complex bridge design*
- ✓ *Geotechnical design*
- ✓ *Roadway approaches*

2. *Whitman, Requardt & Associates, LLP – Design Manager* 3. *Aug. 1999 – Dec. 2006*

VDOT FAIRFAX COUNTY PARKWAY (FCP) WIDENING AND INTERCHANGE AT FAIR LAKES PARKWAY – FAIRFAX COUNTY, VA ($44M)

1. Mr. Maddox is the Design Manager responsible for this project, which widens FCP from four to six lanes for 2.3 miles and provides an interchange at Fair Lakes Parkway and Monument Drive. The interchange includes two new bridges and over 43,000 sf of retaining walls. The project also required the design of over 70,000 sf of noise walls. The FCP Bridge over Route 50 was widened from four to six lanes. The project also includes an extensive MOT plan with multiple phases of construction for maintaining over 45,000 vpd during the construction of the project. The project included extensive hydraulic modeling of the Rocky Run Stream and tributaries. The triple 8'x10' box culvert was extended from an existing regional stormwater management pond and required extensive coordination with the owner, Fairfax County and DCR. DCR required a dam breach analysis for the regional pond since Fair Lakes Parkway was originally constructed on top of the dam. The design included an innovative design to utilize the existing ponds for all stormwater management for the project. Mr. Maddox provides oversight and coordination for all elements of the project including roadway, hydraulic, SWM, structural, utility relocation, traffic engineering, environmental permits, traffic forecast and analysis, and public involvement.

Relevance to the Project
- ✓ *Floodplain analysis*
- ✓ *Bridge design*
- ✓ *Roadway design*
- ✓ *MSE retaining walls*

2. *Whitman, Requardt & Associates, LLP; Design Manager* 3. *Oct. 2001 – Est. July 2013 (Under Const.)*

VDOT ROUTE 123 INTERCHANGE AT ROUTE 1– PRINCE WILLIAM COUNTY, VA – VDOT ($70M)

1. Mr. Maddox is the Design Manager responsible for the design of the project, which includes a tight urban interchange at Route 123 and Route 1 and the widening from four to six lanes 1.7 miles of Route 1 and Route 123. The project requires three new bridges; Route 123 over Route 1, Route 123/Belmont Bay Drive over CSXT Railroad, and Route 1 over Marumsco Creek. Route 123 and the connecting ramps are elevated on MSE retaining walls to reduce the right-of-way impacts of the project. The replacement of the existing bridge over Marumsco Creek requires a detailed analysis of the FEMA floodplain. The HES RAS hydraulics analysis extended downstream to a major structure under the CXST Railroad and through a development that historically experiences flooding. This required extensive coordination with the County and project stakeholders to ensure the downstream 100-year flood elevation was not increased by the project design. A complex MOT plan is also required to maintain traffic operations during multiple phases of construction including a complete traffic analysis of each phase of construction. Mr. Maddox provides oversight and coordination for all elements of the design including surveys, roadway, hydraulics, SWM, structural, geotechnical, traffic engineering, ITS, TMP, traffic forecasting and analysis, permitting and public involvement.

Relevance to the Project
- ✓ *FEMA floodplain analysis*
- ✓ *Bridge design*
- ✓ *Utility relocation design*
- ✓ *MSE retaining walls*

2. *Whitman, Requardt & Associates, LLP; Design Manager* 3. *Dec. 2007 – Dec. 2014 Advertisement*

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title: **KEVIN OTT, DESIGN-BUILD PROJECT MANAGER/SR. 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 **2** Years With Other Firms **15** Years

Please list chronologically (most recent experience first) your employment history, position and general experience or fields of practice for the last fifteen(15) years. (NOTE: If you have less than 15 years of experience, please list all of your experience for those years you have worked.):

AMERICAN INFRASTRUCTURE, DESIGN-BUILD PROJECT MANAGER/SR. CONSTRUCTION MANAGER; 2011 - PRESENT: Mr. Ott is responsible for managing all aspects of his projects including planning and scheduling work activities; submittals; pay estimates; coordination with the owner, design consultants, utility owners, and other stakeholders; and safety for all phases of construction. Mr. Ott oversees the field construction activities to ensure project delivery that meets or exceeds all expectations of quality, timeliness and budget. Mr. Ott has simultaneously managed up to 5 projects for a combined value of $50M.

GRANITE CONSTRUCTION COMPANY, CONSTRUCTION MANAGER; 2007-2011: Mr. Ott was responsible for management of engineering, budget, schedule, contracts, document controls, and negotiation of contract changes. He managed a staff of 15+ professionals including three departments, over 100 subcontractors and suppliers, and coordinated with design management, quality control, environmental monitoring, public outreach, and construction operations. Mr. Ott assigned, monitored, and adjusted project personnel to ensure timely project completion.

GRANITE CONSTRUCTION COMPANY, PROJECT ENGINEER/PRECAST MANAGER; 1999 - 2007: Mr. Ott performed construction management, engineering, and project controls duties including scheduling, work plan development, submittals, cost management, forecast analysis, estimating, and subcontractor/supplier negotiations. Mr. Ott prepared and negotiated change orders with owners and subcontractors, performed cost analysis, and prepared progress payment applications. As Precast Manager, Mr. Ott managed segmental precast operations from start-to-finish, including the development of the complete work plan for the casting yard where all segments of the precast substructure of the WWB were fabricated. He managed the engineering, construction operations and quality control departments of the precast operation and was responsible for the casting schedule, budget, and quality, including coordination of numerous subcontractors and suppliers.

GRANITE CONSTRUCTION COMPANY & ANGELO IAFRATE CONSTRUCTION, FIELD ENGINEER; 1997-1999: Mr. Ott manages production on large highway reconstruction and heavy rail projects. He was responsible for material procurement, cost tracking, quantity tracking, and contract administration. Mr. Ott coordinated progress payments, developed work plans, provided field engineering and field supervision for structures, retaining walls, paving, electrical, and utility construction activities.

EXPERIENCE RELEVANT TO THE PROJECT

- 17 years experience
- 13 years of D/B experience
- 4 years of NOVA experience
- Complex bridge construction
- Construction Quality Control
- Responsible environmental construction

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:
Iowa State University/BS/1997/Construction Engineering

f. Active Registration: Year First Registered/ Discipline/VA Registration #:
RLD and ESCCC certifications will be obtained prior to commencement of construction

g. Document the extent and depth of your experience and qualifications relevant to the Project.
1. *Note your specific responsibilities and authorities for each assignment, 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 assignment.*

(List at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.)

I-95 AT CONTEE ROAD INTERCHANGE DESIGN-BUILD PROJECT, LAUREL, MD ($30.7M)

1. Mr. Ott is the Construction Manager coordinating the design, managing onsite operations, and coordinating with the owner. The project designed and constructed a new bridge over-pass and Interchange on I-95 between MD198 and the Inter-County Connector - MD200 including one-mile of approach roadways and ramps to/from the I-95 C-D roads being added by the ICC Contract D/E. AI's design concept for the bridge over I-95 shortened the length by 82 feet to 519 feet in length. Mr. Ott coordinated utility relocations with Verizon, Comcast, BGE gas, BGE electric, and WSSC for water mains up to 42". He also coordinated directly with the adjacent town center site developed (Konterra) to ensure utilities were designed and relocated to accommodate that project. Completion of the project is anticipated six month ahead of the schedule advertised by MSHA. Throughout construction, there have been no traffic incidents involving the public.

Relevance to the Project
- ✓ *DOT Design-Build project*
- ✓ *Multiple-span bridge construction*
- ✓ *Utility coordination and relocation*
- ✓ *Stakeholder coordination*

2. *American Infrastructure; Construction Manager* 3. *Dec 2011 – Anticipated May 2014*

INTER-COUNTY CONNECTOR (ICC) CONTRACT DESIGN-BUILD PROJECT, ROCKVILLE, MD ($485M)

1. Mr. Ott started the project as Project Controls Manager, moved into a Segment Manager Position, and ultimately into the role of Construction Manager. He was instrumental in establishing the builder's Joint Venture policies & procedures and developing the organizational structure. He assigned, monitored, and adjusted personnel to ensure the timely completion of the project as he managed the engineering staff including 3 departments, 16 engineers, and over 100 subcontractors and suppliers. He was heavily involved in coordination of design, quality control, environmental monitoring, and public outreach with day-to-day construction operations. In his role as Segment Manager, Mr. Ott managed utility coordination and electrical aspects of construction. The project included design and construction of a new 7-mile 6-lane toll road from I-270 to MD97. The scope of work included road widening, structures, ramps/interchanges, median construction, and a shared use path. Mr. Ott worked together with the Client's representatives and project stakeholders through open and constant communication for the duration of the project.

Relevance to the Project
- ✓ *DOT Design-Build project*
- ✓ *Complex bridge construction*
- ✓ *Environmental stewardship*
- ✓ *Utility coordination and relocation*
- ✓ *Challenging geotechnical conditions*

2. *Granite Construction Company, Construction Manager* 3. *April 2007 – Nov 2011*

WOODROW WILSON BRIDGE VIRGINIA APPROACH SPANS (BR3B), ALEXANDRIA, VA ($126M)

1. Mr. Ott served as Construction Manager for the precast operation and transitioned to bridge substructure and foundation Construction Manager. His responsibilities included construction engineering, oversight of construction operations, and quality control. The project included construction of 13 spans of a dual 6-lane bridge through Jones Point Park. Mr. Ott managed construction of the 24" precast pile foundations which were driven 60 feet into the silty sandy soil conditions. Foundation were constructed in cofferdams and consisted of six piers with concrete pours up to 500 CY to facilitate construction in the high water table within the floodplain. Construction access issues were encountered during construction; essentially the access road was sinking due to poor subsoils. Access was maintained by strengthening the road with geogrid and imported materials.

   While working closely with the Client's designer, precast oversight personnel, and the construction manager, he developed the complete work plan for the casting yard where 460 segments were cast for the segmental concrete V-Pier substructure. Mr. Ott closely monitored and adjusted the plan as work progressed and was successful at completing the casting operation on schedule and on budget. Most notably, the project received the 2008 Mid-Atlantic Construction Best of 2008 Bridge Award of Merit and 2009 American General Contractors (AGC) Marvin M. Black Excellence in Partnering Award.

Relevance to the Project
- ✓ *NOVA Project*
- ✓ *Complex bridge construction*
- ✓ *Coordination with City*
- ✓ *Public coordination*

2. *Granite Construction Company, Construction Manager for Precast Operations and Foundations* 3. *Mar 2003 – Dec 2006*

STATE HIGHWAY 66 RECONSTRUCTION, ROWLETTE, TX ($30M)

1. Mr. Ott served as Structures Engineer for construction of this 30-span bridge. The project consisted of two 57-foot wide, 1,200 foot long bridges spanning the Rowlette Creek. Mr. Ott's responsibilities included construction operation planning and quality control. He also managed shop drawings, verified compliance with contract plans and specifications, procured materials, and coordinated subcontractors. Construction access was installed and maintained utilizing a tressel and with consideration to environmental impacts.

Relevance to the Project
- ✓ *Bridge construction*
- ✓ *Construction Access*
- ✓ *Geotechnical challenges*
- ✓ *Foundation construction in water*

2. *Granite Construction Company; Structures Engineer* 3. *May 1997 – July 1999*

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title: **JEREMY SCHLUSSEL, P.E., VICE PRESIDENT**

b. Project Assignment: **LEAD STRUCTURAL ENGINEER**

c. Name of Firm with which you are now associated:
WHITMAN, REQUARDT AND ASSOCIATES, LLP

d. Years experience: With this Firm **12** Years With Other Firms **5** Years

Please list chronologically (most recent experience first) your employment history, position and general experience or fields of practice for the last fifteen (15) years. (NOTE: If you have less than 15 years of experience, please list all of your experience for those years you have worked.):

WHITMAN, REQUARDT AND ASSOCIATES, LLP, LEAD STRUCTURAL ENGINEER; 2006 – PRESENT:
Mr. Schlussel manages the Virginia Structure and Bridge Group of WR&A. He has designed and managed a wide variety of new design and maintenance and repair bridge projects for VDOT and local municipalities. Projects that Mr. Schlussel has been the Lead Structural Engineer (LSE) include:

- Route 123 (Ox. Road) Bridge over Campus Drive – **Design-Build** LSE – 2012-Present
- Route 636 Bridge over BBRR – **Design-Build** LSE – 2012-Present
- Route I-81 Bridge over New River – LSE – 2011-Present
- Route 123 Interchange at Route 1 – 3 new bridge structures – LSE – 2007-Present
- Route 286 (Fairfax County Pkwy.) Bridges over Route 7100 and 7269 – LSE – 2001-2012
- VDOT Bridge Maintenance and Repair Project Manager – Region 3 – LSE – 2006-Present
- VDOT Bridge Maintenance and Repair Project Manager – Region 2 – LSE – 2006-2011

WHITMAN, REQUARDT AND ASSOCIATES, LLP, BRIDGE DESIGN PROJECT ENGINEER;2001 – 2006*:*
Mr. Schlussel was responsible for designing a wide variety of projects from bridge replacement projects on primary and interstate roadways to feasibility reports for bridge structure options. Projects included structural steel, including hybrid steel designs, and pre-stressed concrete bridge structures and sub-structure design. Sample projects include:

- Route I-81 Bridges over the Buffalo Creek – Bridge Design Project Engineer – 2001-2007
- Route I-81 Bridges over the Maury River – Bridge Design Project Engineer – 2001-2006
- Colonial Heritage Blvd. over Yarmouth Creek – **Design-Build** – Bridge Design Project Engineer – 2005

SITE-BLAUVELT ENGINEERS, INC., BRIDGE ENGINEER; 1996 – 2001:
Mr. Schlussel responsibilities increased over the time from supporting senior level engineers to leading bridge design efforts on major bridge projects throughout Virginia. Projects that were designed ranged from interchange bridge structures to rehabilitation projects throughout Virginia.

SUMMARY OF RELEVANT EXPERIENCE

- 17 years of Bridge Design experience
- 7 years of experience as LSE on VDOT Bridge Projects
- Two Virginia Design-Build projects
- LSE on four major complex bridge projects
- Expertise in Jointless Bridge Design techniques
- Field condition verification

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:
West Virginia University – Morgantown, WV/M.S./1996/Civil Engineering – Structures
Virginia Military Institute – Lexington, VA/B.S./1994/Civil Engineering
VDOT Transportation Project Management Institute (TPMI) – 2010
Certification Safety Inspection of In-Service Bridges

f. Active Registration: Year First Registered/ Discipline/VA Registration #:
Professional Engineer/Virginia/2000/#033974; Professional Engineer/North Carolina/2010/#036510; Professional Engineer/Pennsylvania/2000/#PE057355E

g. Document the extent and depth of your experience and qualifications relevant to the Project.
1. *Note your specific responsibilities and authorities for each assignment, 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 assignment.*

(List at least three (3), but no more than five (5) relevant projects for which you have performed a similar function.)

ROUTE 123 (OX ROAD) OVER CAMPUS DRIVE – FAIRFAX COUNTY, VA – GEORGE MASON UNIVERSITY DESIGN-BUILD ($13M) – SUBCONSULTANT

1. Mr. Schlussel is the Lead Structural Engineer for the design-build project that will connect the east and west campuses of GMU via a new connector road to be located under the existing Route 123 profile. The bridge structure will require excavation of approximately 25 ft of existing roadway, while maintaining four lanes of traffic. The bridge structure will be a 90 ft. simple span VDOT Bulb-T bridge supported by a semi-integral abutment. During the design, challenges included working around various fiber-optic lines and designing an aesthetically pleasing bridge structure.

Relevance to the Project
- ✓ *Design-build*
- ✓ *Bridge design*
- ✓ *Roadway approaches*
- ✓ *Utility coordination*

2. *Whitman, Requardt & Associates, LLP; Lead Structural Engineer*
3. *Sept. 2012 – July 2014 (Under Construction)*

VDOT I-81 BRIDGE REPLACEMENTS OVER BUFFALO CREEK – ROCKBRIDGE COUNTY, VA ($27M)

1. Mr. Schlussel was the Bridge Design Project Engineer responsible for the complete design of two four-span continuous steel girder bridges with total lengths of 635 ft. (NBL) and 570 ft. (SBL), with pier heights up to 110 ft. The maximum span lengths are 176 ft. The ends of the steel girders are encased in full-depth concrete end diaphragms, to provide complete separation from the toothed expansion joints at the abutments. The project was located in a karst geologic site requiring complex foundation design.

Relevance to the Project
- ✓ *Complex bridge design*
- ✓ *Innovative abutment design*
- ✓ *Fully continuous*
- ✓ *FEMA Floodplain Analysis*
- ✓ *Geotechnical challenges*

2. *Whitman, Requardt & Associates, LLP; Bridge Design Project Engineer*
3. *Aug. 1999 – Dec. 2007*

VDOT I-81 BRIDGE REPLACEMENTS OVER MAURY RIVER – ROCKBRIDGE COUNTY, VA ($18M)

1. Mr. Schlussel was the Bridge Design Project Engineer responsible for the complete design of two continuous steel-girder bridges: the NBL Bridge with five spans and a total length of 825 ft., and the SBL Bridge with four spans and a total length of 743 ft. The maximum span lengths are 193 feet, with pier heights up to 68 feet. The ends of the steel girders are encased in full-depth concrete end diaphragms, to provide complete separation from the toothed expansion joints at the abutments. The project was located in a karst geologic site requiring complex foundation design.

Relevance to the Project
- ✓ *Complex bridge design*
- ✓ *Innovative abutment design*
- ✓ *Fully continuous*
- ✓ *FEMA floodplain analysis*
- ✓ *Geotechnical challenges*

2. *Whitman, Requardt & Associates, LLP; Bridge Design Project Engineer*
3. *Aug. 1999 – Dec. 2006*

VDOT I-81 BRIDGE REPLACEMENTS OVER NEW RIVER – MONTGOMERY/PULASKI, VA ($55M – BRIDGE ONLY)

1. Mr. Schlussel is the Lead Structural Engineer responsible for the complete design of two continuous steel-girder bridges with seven spans and a total length of 1,700 ft. with pier heights up to 70 feet. The foundations are a mixture of spread and drilled-shafts to account for the complex geologic conditions in the New River. The project is currently detailed to be fully continuous using the Virginia Abutment.

Relevance to the Project
- ✓ *Complex bridge design*
- ✓ *Innovative abutment design*
- ✓ *Fully continuous*
- ✓ *FEMA floodplain analysis*
- ✓ *Geotechnical challenges*

2. *Whitman, Requardt & Associates, LLP; Lead Structural Engineer*
3. *Feb. 2011 – Dec. 2017 Advertisement*

COLONIAL HERITAGE BLVD. OVER YARMOUTH CREEK – DESIGN-BUILD – YORK COUNTY, VA ($1.4M)

1. Mr. Schlussel was the Bridge Design Project Engineer for the design-build project for a new bridge structure to span over Yarmouth Creek. The bridge structure was designed and constructed to minimize the impact to the surrounding areas and consisted of 4 simple spans using AASHTO Type 3 Girders; the bridge structure total length is 278 ft. The bridge structure is on a 5.25 degree curve and is supported on multi-column pile bents.

Relevance to the Project
- ✓ *Design-build*
- ✓ *FEMA floodplain*
- ✓ *Bridge structure over waterway and wetlands*

2. *Whitman, Requardt & Associates, LLP; Bridge Design Project Engineer*
3. *Aug. 2005 – Nov. 2005*

3.4.1 Work History Forms

ATTACHMENT 3.4.1(a)

LEAD CONTRACTOR - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime design consulting firm responsible for the overall project design.	c. Contact information of the Client or Owner and their Project Manager who can verify Firm's responsibilities.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement.(in thousands)
					Original Contract Value	Final or Estimated Contract Value	
Name: **ROUTE 29 NBL BRIDGE OVER TYE RIVER DESIGN-BUILD** Location: **Amherst and Nelson Counties, VA**	Name: **DEWBERRY**	Name of Client./ Owner: **VDOT** Phone: **434-856-8255** Project Manager: **TODD BOLLING** Phone: **434-856-8255** Email: **TODD.BOLLING@VDOT.VIRGINIA.GOV**	**SEPTEMBER 2012**	**APRIL 2012**	**$6,670**	**$6,818**	**$6,818**

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

- The bridge opened to traffic nine months ahead of schedule, with final completion seven months ahead of schedule.
- Project completed approximately $1M under VDOT's budget.
- AI and VDOT worked together to minimize environmental impacts from the causeway, exceeding permit requirements.
- The project was presented by VDOT's Lynchburg District Administrator at VTCA in April 2012. As detailed in the presentation, "All parties acted as a team with the project being placed ahead of individual interests."

"AI was committed to providing a quality product for the owner and worked very hard during the course of this project to provide it through their QC process." *– Thomas B. Hall, VDOT DBPM Designee, NXL Construction Services (AI Letter of Recommendation)*

Relevance to the Project

- ✓ *VDOT Design-Build project completed seven months of ahead of schedule*
- ✓ *$1M under VDOT's budget*
- ✓ *Bridge construction*
- ✓ *Foundation construction*
- ✓ *In-stream construction*

Setting bridge beams at night.

PROJECT DESCRIPTION – The Route 29 Bridge over Tye River is located near Charlottesville in Amherst and Nelson Counties, Virginia. The purpose of this project was to replace the existing structurally deficient bridge with a new two-lane bridge and reconstruct the approaches on both ends of the structure. The elevation of the roadway profile was increased to match the existing Southbound lanes bridge. The length of the project is approximately 0.4 miles beginning 650 feet from the south end of the existing bridge and ending 900 feet from the north end of the existing bridge.

The project consisted of complete demolition and removal of the existing Northbound lane bridge and replacement with a 650' long, five-span, two-lane bridge that is approximately 55' high over the Tye River. The project included the construction and maintenance of a temporary detour to switch all traffic to the Southbound bridge; construction and maintenance of a causeway for access across the river; driving of 12x63 steel piles; rock excavation; construction of two foundations and piers in the river; erection of 77"concrete Bulb-T's weighing approximately 65 tons each; placement of approx. 2,100 CY of concrete; placement of approx 344,000 lbs of reinforcing steel; approx. 7,000 CY of import; and placement of approx. 4,600 tons of asphalt.

Erection of concrete Bulb-T's over the Tye River.

LESSONS LEARNED FOR THE PROJECT

- **Environmental Stewardship –**AI and VDOT partnered to install a temporary access bridge to minimize impacts of construction to the river during Time of Year Restrictions and exceeded permit requirements.
- **Safety** –The temporary detours shifting traffic to the Southbound bridge were removed nine months ahead of schedule. Through daily MOT maintenance and an effective TMP plan, there were no traffic incidents throughout the duration of construction.
- **Hydraulic Conditions –**Construction of two piers in the river required coffer dams and stable access. The most severe high water event should be anticipated to prevent challenges similar to a causeway washing out experienced on this project.

AI/WR&A Team Advantage

The AI/WR&A Team's DBPM and Bridge Superintendent for the Gloucester Parkway Extension project oversaw design and construction of the Tye River project, assisting the Lessons Learned to be applied directly to the Project.

Pouring concrete for the bridge deck.

ATTACHMENT 3.4.1(a)

LEAD CONTRACTOR - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime design consulting firm responsible for the overall project design.	c. Contact information of the Client or Owner and their Project Manager who can verify Firm's responsibilities.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement.(in thousands)
					Original Contract Value	Final or Estimated Contract Value	
Name: **I-95 AT CONTEE ROAD INTERCHANGE DESIGN-BUILD** Location: **Prince George County, MD**	Name: **Wallace, Montgomery & Associates**	Name of Client.: **MSHA** Phone: **301-513-7300** Project Manager: **Mark Dougherty** Phone: **301-710-7342** Email: **mdougherty2@sha.state.md.us**	**MAY 2014**	**MAY 2014**	**$30,700**	**$34,000** The change in contract value was caused by owner approved changes.	**$34,000**

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

VERIFIABLE EVIDENCE OF GOOD PERFORMANCE

- There have been no traffic incidents with the travelling public during construction.
- Completion is anticipated 6 months ahead of the schedule advertised by MSHA and the Interim Milestone for bridge removal was completed 4-weeks early.
- The Project has received an average E&S Quality Assurance Rating of "A".
- The Partnering Mission Statement developed by the Project Team, which included MSHA representatives, utility owners, subcontractors, and the Design-Builder states "*The Contee Interchange Team is committed to designing and building a quality project for the citizens of Maryland in an incident-free and cost-effective manner that will be capable of achieving recognition at the highest level through a safe working environment, proactive communication, coordination with adjacent stakeholders, completion on-schedule, environmental stewardship, minimizing public inconvenience, mutual respect, and innovation.*"

Relevance to the Project

- ✓ *DOT Design-Build project*
- ✓ *Bridge construction*
- ✓ *Utility Coordination and Relocation*
- ✓ *Coordination with adjacent business owners*
- ✓ *Stormwater management*

Detour of I-95 for Steel Girder Erection

PROJECT DESCRIPTION - This project adds a new bridge and interchange on I-95 between MD198 and the Inter-County Connector – MD200. It includes one-mile of approach roadways connecting to an adjacent Prince George's County contract. The project also includes Ramps to/from the I-95 C-D Roads being added by the ICC Contract D/E. The new bridge completion and old overpass bridge demolition is required by August 2013 for the ICC Contract D/E to complete C-D road construction. The bridge is 58' wide by 520' long and includes 3 piers with aesthetic archway features, architectural finishes on piers, parapets, & abutments, and structural steel girders.

Utilities being relocated under the contract include Verizon, Comcast, BGE gas, BGE electric, and WSSC 42", 30", 24", & 16" water mains. The stormwater management work includes 10,000 LF of bio-swales, 7 detention basins/ponds, and 8,000 lf of drainage pipe. The pavement section requires 35,000 tn of GAB, 75,000 tn of HMA, and 18,000 lf of underdrain.

One of Five Stormwater Management Basins

LESSONS LEARNED

- **Stormwater Management –** The advertised stormwater management plan was optimized during the design phase eliminating the need for two basins through the use of bio-swale and bio-retention treatment facilities. The Design-Builder and MSHA relationship allowed initial discussions and futher refinement of the stormwater management plan while meeting the performance specifications. Consideration of additional adjacent existing facilities assisted refinement of the plan that was approved by the Owner.
- **Innovative Design –** AI's Alternative Technical Concept shortened the bridge over I-95 by 82 feet to 519 feet in length. The shortening of the bridge was coordinated with the adjacent design-build contract to construct the I-95 C-D Road under the over pass. Coordination of an expedited design resulted in completion of the new bridge four weeks ahead of schedule. The design and construction of the bridge was on the critical path of the Project CPM Schedule.
- **Third-Party Coordination –** Coordination of design and relocation of several private utilities was required during site rough grading operations and prior to final roadway grading. This was a key component to meeting the early interim milestone for Bridge Construction proposed by AI. The project also occurred in conjuction with adjacent construction and development projects with different stakeholders at each interface of the project. The Inter-County Connector interfaces with Contee Road at the four ramps and a Prince George's County project to extend Contee Road at both the East and West interfaces. Utilities were designed and relocated to accommodate future town center site development project by Konterra adjacent to the roadway.

AI/WR&A Team Advantage

The AI/WR&A Team's CM for the Gloucester Parkway Extension project is the CM on the Contee Road project, assisting the Lessons Learned to be applied directly to the Project.

ATTACHMENT 3.4.1(a)

LEAD CONTRACTOR - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime design consulting firm responsible for the overall project design.	c. Contact information of the Client or Owner and their Project Manager who can verify Firm's responsibilities.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement.(in thousands)
					Original Contract Value	Final or Estimated Contract Value	
Name: **RICHMOND AIRPORT CONNECTOR ROAD DESIGN-BUILD** Location: **Henrico County, VA**	Name: **Dewberry**	Name of Client / Owner.: **Transurban** Phone: **804-822-3460** Project Manager: **Richard Prezioso** Phone: **804-822-3460** Email: **rprezioso@transurban.com**	**05/2011**	**03/2011**	**$38,523**	**$39,446** Change due to scope validation after engineering investigation was complete	**$39,446**

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

- Worked over 152,000 man-hours with zero incidents;
- Completed the project two months ahead of schedule;
- Design-Build Institute of America Design-Build Merit Award for Transportation (2011);
- Received an overall rating of "Extremely Satisfied" (American Infrastructure Customer Survey 2010).

Relevance to the Project

- ✓ *Design-Build*
- ✓ *Bridge Construction*
- ✓ *New alignment roadway*
- ✓ *Geotechnical Challenges*
- ✓ *Stakeholder Coordination*

PROJECT DESCRIPTION

Richmond Airport Connector Road (ACR) was a design-build project which consisted of approximately 1.6 miles (2.58 km) of new four-lane roadway that provides motorists with direct access to the Richmond International Airport from Route 895. The scope of work included three new bridges (one crossing over existing Route 895), bridge widening on one structure, bulk excavation, box culvert extensions; and stone subbase and paving. AI was responsible for fully managing the QA and QC aspects of this project and has utilized this model for QA/QC on our *Middle Ground Boulevard* and *I-581/Elm Avenue Interchange Improvements D/B projects*.

The project challenges included an environmentally sensitive site, and aggressive project schedule, and unsuitable soils. Design development and construction planning were focused on reducing the impact to the environmentally sensitive site and surrounding wetlands. Aggressive schedule milestones were met by managing critical path items daily and scheduling the necessary settlement periods for fills. AI utilized innovative solutions for ground improvements and soils management including lime stabilization and geotextile fabrics.

AI worked together with key stakeholders to provide innovative value engineering solutions including adjusting the roadway alignment to reduce overall excavation, altering the storm water management design for ease of constructability, and shortening the length of the bridges to reduce future maintenance costs.

Roadway under construction.

"Richmond Airport Connector experienced its fair share of the inevitable issues that will arise during the life of a project. What set this project apart from others was the manner in which the issues were addressed. The team managed to separate the issues from other ongoing efforts in a manner that allowed the project to continue making progress while the issue received the necessary focus." *– Richard Prezioso (Recommendation letter for DBIA award)*

Airport Connector Road interchange with Route 895.

LESSONS LEARNED FOR THE PROJECT

- **Communication –** Open Communication between AI, our lead designer, the Department, and Transurban reduced streamlined the design process and allowed the AI Team to fully understand the project goals before starting the work. AI implemented a formal partnering process with the Department and other stakeholders which included a set schedule, set project goals, and a dispute resolution process all managed by third party. This created an atmosphere of open communication that helped resolve issues as they arose on the project.
- **Preplanning –** AI intitated early coordination and approvals from third parties such as CSX, Henrico County, Dominion Power, and the Richmond Airport to expedite the project schedule.

AI/WR&A Team Advantage

The AI/WR&A Team's DBPM and Roadway Superintendent for the Gloucester Parkway Extension project oversaw design and construction of Richmond Airport Connector Road, assisting the Lessons Learned to be applied directly to the Project.

ATTACHMENT 3.4.1(b)

LEAD DESIGNER - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime/ general contractor responsible for overall construction of the project.	c. Contact information of the Client and their Project Manager who can verify Firm's responsibilities.	d. Construction Contract Completion Date (Original)	e. Construction Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement.(in thousands)
					Construction Contract Value (Original)	Construction Contract Value (Actual or Estimated)	
Name: **I-81 BRIDGES OVER BUFFALO CREEK** Location: **Rockbridge County, VA**	Name: **Fairfields Echols, LLC (Fairfield Skanska, Inc.)**	Name of Client.: **VDOT** Phone: **540-332-7724** Project Manager: **Mr. Wayne Nolde** Phone: **540-332-7724** Email: **wayne.nolde@VDOT.Virginia.gov**	**2007 Construction**	**2007 Construction**	**$27,151**	**$27,073**	**$2,221**

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

WR&A was the prime designer for the I-81 bridge replacement project at Buffalo Creek. *WR&A completed approximately 90% of the design from our Richmond, Virginia office*. The bridges had reduced shoulder width and were classified as functional obsolete. The project was included in the first part of the I-81 reconstruction efforts and designed to widen I-81 from four to six lanes.

Roadway Design – The project required the reconstruction of approximately one mile of the interstate facility. The design required total replacement of the existing pavement section, which required the roadway typical section to be shifted to the east to ensure two travel lanes where maintained during construction at all times.

Hydraulic Analysis – The project required a detailed hydraulic analysis of Buffalo Creek to ensure no impact to the 100-year flood elevation. Additionally, the analysis included the evaluation of temporary causeways into the stream during construction. Three stormwater management facilities were designed for the project and all existing CM drainage pipes were replaced requiring the boring and jacking of several pipes. The project also included the design of the extension of two box culverts.

Geotechnical Engineering – WR&A provided all geotechnical engineering services, which included an extensive testing and boring program to locate potential karst features. Our geologists performed extensive site visits and used dye testing to identify underground stream features that may impact the project design. At the Buffalo Creek northbound bridge it was determined the existing median contained a major underground stream network. The bridge and roadway improvements were shifted to the outside of the existing northbound I-81 lanes to avoid the karst features. WR&A provided a detailed geotechnical report including the design of a major embankments, rock cut slopes and bridge foundations.

Structural Design – The structural design of the two I-81 bridges over the Buffalo Creek gorge with a depth well over 100 feet on I-81 was a main focus of the design. The bridges were on independent alignments and grade with approximately 1,000 ft. distance between the roadways. The NBL bridge was the more challenging design due to the requirement that it be constructed in two stages just downstream from the existing bridge, and due to the site topography. Alignment studies also revealed the need to raise the profiles of the bridges approximately eight feet to meet current FHWA Interstate Design Standards. The design consists of continuous hybrid steel plate girder bridges with the following span configurations: NBL Bridge: 137'-166'-166'-137' = 606' and the SBL Bridge: 138'-154'-154'-138' = 584'. The NBL Bridge is on a curved alignment while the SBL Bridge is on a tangent alignment. Both bridges required tall piers of up to 110 ft. in height due to the depth of the gorge. The Buffalo Creek bridges featured an innovative design element for the treatment of the deck joints at the abutments. The ends of the steel girders are encased in a concrete diaphragm that is integral with the deck and located just beyond the bearings. The deck joints are tooth expansion joints that are located on the abutment side of the concrete diaphragm. VDOT has since included this detail in the Design Guidelines as a special alternative joint detail.

TMP – The sequence of construction and maintenance of traffic required all existing travel lanes to remain open during construction. This required a phased construction of the bridges. The Buffalo Creek northbound bridge was constructed in two phases, while the southbound bridge was shifted into the median and constructed in a single phase.

Public Involvement – WR&A provided all presentation materials and participated in the Design Public Hearing for the project.

PROJECT AWARDS: VDOT Virginia Statewide Construction Quality Award, NPHQ Award "Breaking The Mold" and ACEC Grand Award For Design Excellence

Relevance to the Project

- ✓ *Bridge Design*
- ✓ *Environmental Permitting*
- ✓ *Hydraulics and SWM*
- ✓ *Geotechnical*
- ✓ *Design QA/QC*
- ✓ *Construction Engineering*

LESSONS LEARNED FOR THE PROJECT

- **Geotechnical –** Early involvement of geotechnical staff can have a significant build constructability into the design and reduce project costs.
- **Innovation in Bridge Design –** Innovative bridge design eliminated all deck joints over the steel girders to reduce future maintenance.
- **Permitting –** Permits must carefully consider all temporary construction impacts required by the contractor.

AI/WR&A Team Advantage

WR&A is proposing the same Project Manager and Bridge Design Team for the Gloucester Parkway project, ensuring a proven integrated team approach and assisting the Lessons Learned to be applied directly to the Project.

ATTACHMENT 3.4.1(b)

LEAD DESIGNER - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime/ general contractor responsible for overall construction of the project.	c. Contact information of the Client and their Project Manager who can verify Firm's responsibilities.	d. Construction Contract Completion Date (Original)	e. Construction Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement.(in thousands)
					Construction Contract Value (Original)	Construction Contract Value (Actual or Estimated)	
Name: **I-81 BRIDGES OVER MAURY RIVER** Location: **Rockbridge County, VA**	Name: **Orders Construction Company**	Name of Client.: **VDOT** Phone: **540-332-7724** Project Manager: **Mr. Wayne Nolde** Phone: **540-332-7724** Email: **wayne.nolde@VDOT. Virginia.gov**	**2006 Construction**	**2006 Construction**	**$17,736**	**$18,184**	**$2,221**

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

WR&A was selected as the prime designer for the I-81 bridge replacement project for the Maury River bridges. *WR&A completed approximately 90% of the design from our Richmond, Virginia office*. The bridges had reduced shoulder width and were classified as functional obsolete. The project was part of the I-81 reconstruction efforts and was designed to widen I-81 from four to six lanes.

Roadway Design – The project required the reconstruction of approximately one mile of the interstate facility. The design required total replacement of the existing pavement section, which required the roadway typical section to be shifted to the east to ensure two travel lanes where maintained during construction at all times.

Hydraulic Analysis – The project required a detailed hydraulic analysis of the Maury River to ensure the project had no impact to the 100-year flood elevation. Additionally, the analysis included the evaluation of temporary causeways into the stream during construction. Two stormwater management facilities were designed for the project and all existing CM drainage pipes were replaced requiring the boring and jacking of several pipes. The project also included the design of the extension of a box culverts.

Geotechnical Engineering – WR&A provided all geotechnical engineering services for the project, which included an extensive testing and boring program to locate potential karst features. Our geologists performed extensive site visits and used dye testing to identify underground stream features that may impact the project design. WR&A provided a detailed geotechnical report including the design of a major embankments, rock cut slopes and bridge foundations.

Structural Design – The Maury River bridges are three lanes wide with 14-foot wide shoulders on each side. The new bridges are on parallel alignments and are of different lengths and layouts due to the topography and constraints of the site. The NBL bridge is 825 feet in length with five spans (137'–151'–164'–177'–193') and the SBL bridge is 743 feet in length with four spans (193'-177'-177'-193'). They are on tangent alignments, but the NBL bridge has a 1°-45' curve in the southernmost end span. The bridges have fully-continuous hybrid steel superstructures with 73-inch deep plate girders. The Maury River bridges featured an innovative design element for the treatment of the deck joints at the abutments. The ends of the steel girders are encased in a concrete diaphragm that is integral with the deck and located just beyond the bearings. The deck joints are tooth expansion joints that are located on the abutment side of the concrete diaphragm. VDOT has since included this detail in the Design Guidelines as a special alternative joint detail.

TMP – The sequence of construction and maintenance of traffic required all existing travel lanes to remain open during construction. This required a phased construction of the bridges. The Maury River bridges were replaced by first constructing the new northbound bridge to the east and then shifting the northbound traffic onto the new structure. The southbound traffic was then shifted onto the old existing northbound bridge while the new southbound structure was constructed.

Public Involvement – WR&A provided all presentation materials and participated in the Design Public Hearing for the project.

PROJECT AWARD: ACEC Grand Award For Design Excellence

Relevance to the Project

- ✓ *Bridge Design*
- ✓ *Environmental Permitting*
- ✓ *Hydraulics and SWM*
- ✓ *Geotechnical*
- ✓ *Design QA/QC*
- ✓ *Construction Engineering*

LESSONS LEARNED FOR THE PROJECT

- **Geotechnical –** Early involvement of geotechnical staff can have a significant build constructability into the design and reduce project costs.
- **Innovation in Bridge Design –** Innovative bridge design eliminated all deck joints over the steel girders to reduce future maintenance.
- **Permitting –** Permits must carefully consider all temporary construction impacts required by the contractor.

AI/WR&A Team Advantage

WR&A is proposing the same Project Manager and Bridge Design Team for the Gloucester Parkway project, ensuring a proven integrated team approach and assisting the Lessons Learned to be applied directly to the Project.

ATTACHMENT 3.4.1(b)

LEAD DESIGNER - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime/ general contractor responsible for overall construction of the project.	c. Contact information of the Client and their Project Manager who can verify Firm's responsibilities.	d. Construction Contract Completion Date (Original)	e. Construction Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement.(in thousands)
					Construction Contract Value (Original)	Construction Contract Value (Actual or Estimated)	
Name: **FAIRFAX COUNTY PARKWAY INTERCHANGE AT FAIR LAKES PARKWAY** Location: **Fairfax County, VA**	Name: **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**	**2013**	**2013 (Currently Under Construction)**	**$43,961**	**$43,961 (Est) Under Construction**	**$3,736**

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 was selected as the prime designer to provide engineering services to VDOT for the study and final design of an interchange at the Fairfax County Parkway and Fair Lakes Parkway/Monument Drive intersection. *WR&A completed approximately 90% of the design services from our Richmond, Virginia office.* 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 completely 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.

Interchange Design – The project included the design of a split-diamond interchange to provide access to both Fair Lakes Parkway and Monument Drive. There are four ramps with over 7,000 feet in length which intersect Fair Lakes Parkway and Monument Drive at coordinated signalized intersections with multi-lane approaches.

Fairfax County Park Authority Coordination – WR&A assisted VDOT in coordinating the design of the project with the Park Authority for constructing a drainage outfall of a major concrete box culvert into the park using a complex stream restoration design using a series of step pools. The design also included connecting the pedestrian facilities to the Rocky Run Stream Valley Trail in the Park. The design of the trail through the interchange was of significant concern to the Park Authority.

Hydraulic Analysis – The project contained a major drainage outfall to the Rocky Run Stream through an 800-foot long triple 8'x10' box culvert under Ramps B and C and Fairfax County Parkway. The project also included a single 400-foot long 7'x 8' box culvert under Ramp B and C and Fairfax County Parkway. Additionally, Fairfax County Parkway and Fair Lakes Parkway are located on dams for regional stormwater management lakes, which are regulated by DEQ. The dam is being modified by the project and a new stormwater outfall was extended into the existing lake to provide water quality requirements for the project. This required WR&A to complete a dam break analysis and coordination for review of the dam modification with DEQ and the County of Fairfax.

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 bridge widening consisted of two span structural steel plate girders totaling 220' in length set on a new concrete pier. The design included over 43,000 sf of retaining walls including MSE, Pile Panel, Soil Nail and over 70,000 sf of sound barriers. The ashlar stone finish from the bridge abutments was carried through to all wall elements to create an appealing appearance to this gateway to the Fair Lakes Community.

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 through the project.

Traffic Management Plans – The project consisted of multiple phases of construction with a complex sequencing of traffic. The first major phase was the construction of the ramps, while maintaining traffic on existing Fairfax County Parkway. This required a complex sequencing for the construction of the box culverts under the ramps. During construction, through and left turn 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.

Public Involvement – Since the 1980s, the Fair Lakes Community has maintained the VDOT right-of-way with landscaping, decorative signage, and mowing and reserved the right-of-way for the future interchange project. WR&A led a series of meetings with the Fair Lakes League that resulted in the acceptance of the project, donation of right-of-way/easements and utilization of existing private regional stormwater management facilities for the project. WR&A also developed materials for both a Citizens' Information Meeting and a Design Public Hearing.


Rendering


Under Construction

Relevance to the Project

- ✓ *Bridge Design*
- ✓ *Environmental Permitting*
- ✓ *Hydraulics and SWM*
- ✓ *Utilities Design*
- ✓ *Design QA/QC*
- ✓ *Construction Engineering*

LESSONS LEARNED FOR THE PROJECT

- **Traffic Management Plans –** Detailed traffic analysis of each construction phase is essential to a quality Transportation Management Plan.
- **Stormwater Management –** Innovative approach to stormwater management is required to minimize right-of-way impacts.
- **Stakeholder Partnering –** Reaching out to Fairfax County Park Authority resulted in enhancement to both the Park and the proposed project.

AI/WR&A Team Advantage

WR&A is proposing the same Project Manager for the Gloucester Parkway project, ensuring a proven integrated team approach and assisting the Lessons Learned to be applied directly to the Project.

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