

# STATEMENT OF QUALIFICATIONS

A DESIGN-BUILD PROJECT

## I-64 Capacity Improvements – Segment III

From: 1.15 Miles West of Route 199 (Lightfoot)

To: 1.05 Miles West of Route 199 (Humelsine Parkway)

York County, Virginia

State Project No.: 0064-965-229, P-101, R-201, C-501, B638, B-639  
B-640, B-641, B-642, B-643, D-609, D-610, D-611

Federal Project No.: NHPP-064-3 (498)

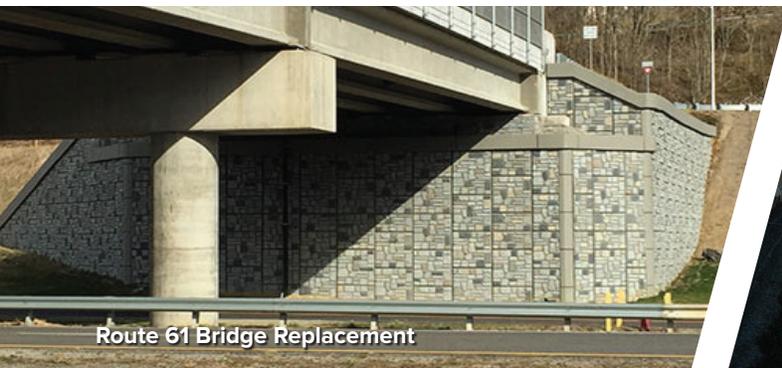
Contract ID No.: C00106689DB97

Date: May 2, 2017



# ATTACHMENT 3.1.2

# STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS



**ATTACHMENT 3.1.2**

**Project: 0064-965-229, Contract ID: C00106689DB97**

**STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS**

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

<b>Statement of Qualifications Component</b>	<b>Form (if any)</b>	<b>RFQ Cross reference</b>	<b>Included within 15-page limit?</b>	<b>SOQ Page Reference</b>
<b>Statement of Qualifications Checklist and Contents</b>	Attachment 3.1.2	Section 3.1.2	no	<i>i -iii</i>
<b>Acknowledgement of RFQ, Revision and/or Addenda</b>	Attachment 2.10 (Form C-78-RFQ)	Section 2.10	no	<i>iv</i>
<b>Letter of Submittal (on Offeror's letterhead)</b>				
Authorized Representative's signature	NA	Section 3.2.1	yes	1
Offeror's point of contact information	NA	Section 3.2.2	yes	1
Principal officer information	NA	Section 3.2.3	yes	1
Offeror's Corporate Structure	NA	Section 3.2.4	yes	1
Identity of Lead Contractor and Lead Designer	NA	Section 3.2.5	yes	1
Affiliated/subsidiary companies	Attachment 3.2.6	Section 3.2.6	no	Appx. 3.2.6
Debarment forms	Attachment 3.2.7(a) Attachment 3.2.7(b)	Section 3.2.7	no	Appx. 3.2.7
Offeror's VDOT prequalification evidence	NA	Section 3.2.8	no	Appx. 3.2.8
Evidence of obtaining bonding	NA	Section 3.2.9	no	Appx. 3.2.9
<b>SCC and DPOR registration documentation (Appendix)</b>	Attachment 3.2.10	Section 3.2.10	no	Appx. 3.2.10

**ATTACHMENT 3.1.2**

**Project: 0064-965-229, Contract ID: C00106689DB97**

**STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS**

<b>Statement of Qualifications Component</b>	<b>Form (if any)</b>	<b>RFQ Cross reference</b>	<b>Included within 15-page limit?</b>	<b>SOQ Page Reference</b>
Full size copies of SCC Registration	NA	Section 3.2.10.1	no	Appx 3.2.10
Full size copies of DPOR Registration (Offices)	NA	Section 3.2.10.2	no	Appx 3.2.10
Full size copies of DPOR Registration (Key Personnel)	NA	Section 3.2.10.3	no	Appx 3.2.10
Full size copies of DPOR Registration (Non-APELSCIDLA)	NA	Section 3.2.10.4	no	N/A
<b>DBE statement within Letter of Submittal</b> confirming Offeror is committed to achieving the required DBE goal	NA	Section 3.2.11	yes	1
<b>Offeror's Team Structure</b>				
Identity of and qualifications of Key Personnel	NA	Section 3.3.1	yes	2 - 5
Key Personnel Resume – DB Project Manager	Attachment 3.3.1	Section 3.3.1.1	no	Appx. 3.3.1
Key Personnel Resume – RCE	Attachment 3.3.1	Section 3.3.1.1	no	Appx. 3.3.1
Key Personnel Resume – Quality Assurance Manager	Attachment 3.3.1	Section 3.3.1.2	no	Appx. 3.3.1
Key Personnel Resume – Design Manager	Attachment 3.3.1	Section 3.3.1.3	no	Appx. 3.3.1
Key Personnel Resume – Construction Manager	Attachment 3.3.1	Section 3.3.1.4	no	Appx. 3.3.1
Key Personnel Resume – Lead Utility Coordination Manager	Attachment 3.3.1	Section 3.3.1.5	no	Appx. 3.3.1
Organizational chart	NA	Section 3.3.2	yes	5
Organizational chart narrative	NA	Section 3.3.2	yes	3

**ATTACHMENT 3.1.2**

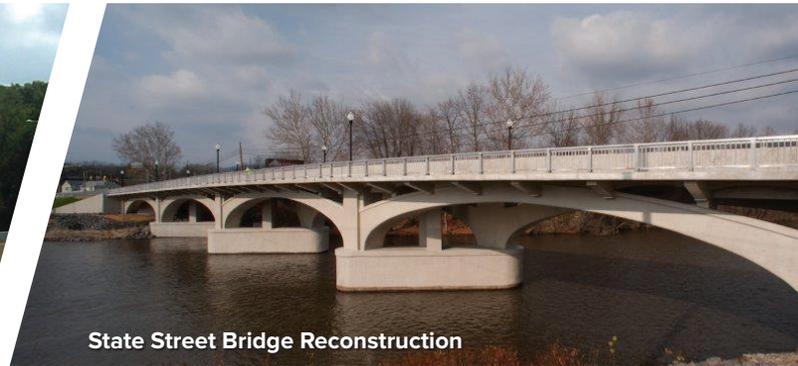
**Project: 0064-965-229, Contract ID: C00106689DB97**

**STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS**

<b>Statement of Qualifications Component</b>	<b>Form (if any)</b>	<b>RFQ Cross reference</b>	<b>Included within 15-page limit?</b>	<b>SOQ Page Reference</b>
<b>Experience of Offeror's Team</b>				6 - 9
Lead Contractor Work History Form	Attachment 3.4.1(a)	Section 3.4	no	Appx. 3.4.1
Lead Designer Work History Form	Attachment 3.4.1(b)	Section 3.4	no	Appx. 3.4.1
<b>Project Risk</b>				
Identify and discuss three critical risks for the Project	NA	Section 3.5.1	yes	10 - 15

# ATTACHMENT 2.1.0 FORM C-78-RFQ

## ACKNOWLEDGEMENT OF RFQ REVISION AND/OR ADDENDA



**ATTACHMENT 2.10**

**COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF TRANSPORTATION**

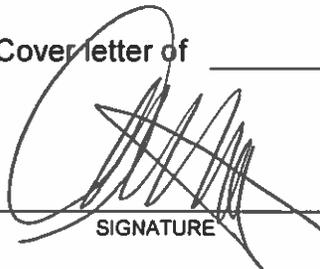
PROJECT: I-64 Capacity Improvements – Segment III  
RFQ NO. C00106689DB97  
PROJECT NO.: 0064-965-229

**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 – March 29, 2017  
(Date)
2. Cover letter of \_\_\_\_\_  
(Date)
3. Cover letter of \_\_\_\_\_  
(Date)

  
\_\_\_\_\_  
SIGNATURE

5/2/2017  
\_\_\_\_\_  
DATE

Aaron T. Myers  
\_\_\_\_\_  
PRINTED NAME

Vice President/General Manager  
\_\_\_\_\_  
TITLE

# 3.2

## LETTER OF SUBMITTAL



I-95/I-695 Interchange



State Street Bridge Reconstruction



Route 61 Bridge Replacement



I-276 Interstate Widening and Reconstruction



May 2, 2017

Joseph A. Clarke, P.E.  
Alternative Project Delivery Division  
Virginia Department of Transportation  
1401 East Broad Street  
Richmond, VA 23219

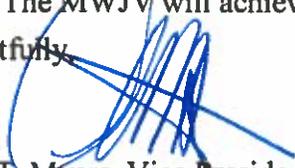
Letter of Submittal/Statement of Qualifications:  
**Interstate 64 Capacity Improvements – Segment III**  
From: 1.15 Miles West of Route 199 (Lightfoot)  
To: 1.05 Miles West of Route 199 (Humelsine Parkway)  
Contract ID Number: C00106689DB97

Dear Mr. Joseph Clarke:

Allan Myers and Wagman Heavy Civil have formed the Allan Myers Wagman joint-venture (MWJV) to provide VDOT with the depth of resources, extensive bridge and interstate widening experience, and design-build expertise necessary to successfully deliver the I-64 Capacity Improvements – Segment III Project (Project). Whitman Requardt & Associates (WRA) has joined our team as the Lead Designer and brings extensive interstate design experience from nearly every interstate corridor in Virginia, and will be supported by Rinker Design Associates and Johnson, Mirmiran & Thompson. Collectively referred to as the MWJV Team, our Team is committed to providing a cost-conscious design and construction approach, expediting project delivery, and safely maintaining traffic and minimizing congestion during construction.

- 3.2.1 Allan Myers Wagman (301 Concourse Boulevard, Suite 300, Glen Allen, VA 23059) is the legal entity who will execute the contract with VDOT.
- 3.2.2 Responsible Charge Engineer, Thomas Heil will serve as the Point of Contact for the MWJV Team:  
**Thomas Heil, P.E., Responsible Charge Engineer** (571) 485-0387 (Telephone)  
301 Concourse Boulevard, Suite 300 (610) 222-4348 (Fax)  
Glen Allen, VA 23059 tom.heil@allanmyers.com
- 3.2.3 Vice President/General Manager, Aaron Myers is the Principal Officer for MWJV Team:  
**Aaron Myers, Vice President/General Manager** (804) 290-8500 (Telephone)  
301 Concourse Boulevard, Suite 300 (804) 418-7935 (Fax)  
Glen Allen, VA 23059 aaron.myers@allanmyers.com
- 3.2.4 Allan Myers Wagman (MWJV) is a construction joint-venture of Allan Myers VA, Inc. Wagman Heavy Civil, Inc. who will have joint and several liability for the Project with no limitations. The MWJV will provide a single 100% performance and a single 100% payment bond.
- 3.2.5 **Lead Contractor:** Allan Myers Wagman **Lead Designer:** Whitman Requardt & Associates, LLP
- 3.2.6 All affiliated and subsidiary companies are identified on the attachment in Appendix 3.2.6.
- 3.2.7 Executed Certification Regarding Debarment Forms are included in Appendix 3.2.7.
- 3.2.8 Allan Myers VA, Inc. (G303) and Wagman Heavy Civil, Inc. (W002) have active VDOT prequalification and a JV bidding agreement (JV085) has been approved by VDOT. Evidence of prequalification and approval is included as in Appendix 3.2.8.
- 3.2.9 The MWJV has the capability to obtain a performance and payment bond for the \$240M estimated contract value of the Project as exhibited by the surety letter in Appendix 3.2.9.
- 3.2.10 Attachment 3.2.10 SCC and DPOR Information and full-size copies of individual licenses for all business entities and Key Personnel are included in Appendix 3.2.10.
- 3.2.11 The MWJV will achieve the 12% DBE participation goal for the Project.

Respectfully,



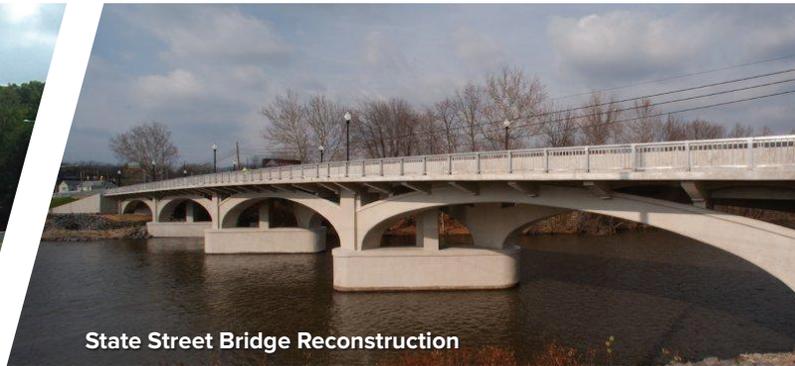
Aaron T. Myers, Vice President/General Manager  
Allan Myers VA, Inc.



Gregory Andricos, PE, President/COO  
Wagman Heavy Civil, Inc.

# 3.3

# TEAM STRUCTURE



As the largest segment of the I-64 corridor improvements projects, I-64 Segment III (Project) will clearly benefit from a cohesive and experienced team of contractors and designers with an integrated and collaborative work history. ***The Allan Myers and Wagman Joint Venture (MWJV) Team has been carefully crafted to capitalize on team members and individual staff experience with innovative design solutions and construction methods, cost-effective risk management strategies, accelerated schedule capabilities, design and construction quality, and public safety.***

Individually, Myers and Wagman are formidable, self-performing, experienced design-build (DB) contractors. Together, the MWJV brings more than 2800 personnel, 1300 pieces of equipment, and a best in class safety culture to deliver the Project on-time, within budget, and safely to the traveling public.

Myers and Wagman are currently building the \$105M Maryland 404 DB Widening Project – an 18-month accelerated schedule project with substantial completion in November 2017. Wagman has participated in two DB joint ventures for MD Intercounty Connector contracts A and B, each of which exceeded \$470M project value. Myers is completing the \$138M I-64 Segment II DB project. This significant experience solidifies MWJV’s ability to perform large scale, complex DB projects.

Our depth of experience also reinforces the benefits of forming an integrated JV that can meet the Project’s goals, manage budget and schedule risk, and allocate the necessary resources to mitigate risks before they become critical to the Project’s success. Accordingly, through the MWJV, Wagman will construct the Project’s eastern section (MM 233 west to MM 238) and Myers will construct the Project’s western section (MM 238 to MM 242). Through this integrated JV approach, the Department will realize the commitment of two high-profile and successful lead contractors working as one to successfully complete the Project.

To complete the MWJV Team, the MWJV has selected Whitman, Requardt & Associates (WRA) as our lead design firm with design support provided by Rinker Design Associates (RDA) and Johnson, Mirmiran & Thompson (JMT). The reasons for selecting WRA as our lead designer are clear; WRA has successfully completed DB projects with both Myers and Wagman, WRA is unsurpassed in engineering excellence and development of innovative design solutions for the Department, and WRA enjoys a productive working relationship with VDOT’s Hampton Roads District. WRA has enjoyed past teaming experience with both RDA (Route 29 Solutions and GMU Campus Connector DB Projects) and JMT (a JV on the Woodrow Wilson Bridge). In addition, the design team members have a great deal of experience working with Myers and Wagman on 10 recent DB projects. ***Together, our design partners have either led or played a significant role in the design of 25 VDOT DB projects over the past 10 years.***

For Quality Management, the MWJV Team includes Quinn Consulting Services, Inc. (QCS) who will perform all Quality Assurance (QA) tasks. QCS is the MWJV’s preferred QA choice because of their experience with Myers VDOT I-64 Segment II DB Project and with Wagman on the VDOT Route 7 over Dulles Toll Road DB Project.

***Integrated MWJV Team***



***MWJV Team Resources***



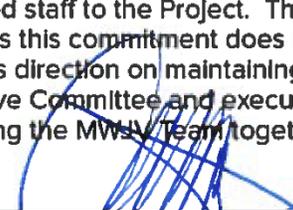
**1300+ Pieces of Heavy Equipment**



### 3.3.1 KEY PERSONNEL

The MWJV Team is committed to providing the six Key Personnel to the Department, as stipulated in the SOQ. These key staff are led by our DB Project Manager, Ed Hilferty who brings over 26 years of experience, including eight years of DB experience to the Project. He is also the DBPM for Myers current I-64 Segment II DB Project. Ed is supported by the remaining five key staff. These individuals bring a combined 150 years of transportation experience, including more than 70 years of VDOT DB experience to support both our DBPM and VDOT. Ed is also supported by four additional value-added staff to ensure budget, schedule, safety, and traffic management project compliance. These key and value-added staff are committed to the Project for its duration to ensure consistency and collaboration with VDOT and the public.

As a member of the MWJV Executive Committee, we hereby commit our selected key staff and value-added staff to the Project. These individuals are valued long-term, high-quality employees, thus this commitment does not come lightly. However, we understand and accept the Department's direction on maintaining the SOQ Team intact as stipulated in the RFQ. As the MWJV Executive Committee and executive of individual member organization, we commit to keeping the MWJV Team together and intact for the duration of the Project.



Aaron Myers, Vice President General/Manager  
Allan Myers VA, Inc.



Gregory Andricos, PE, President/COO  
Wagman Heavy Civil, Inc.

### 3.3.2 ORGANIZATIONAL STRUCTURE

The MWJV Team organizational chart includes all major disciplines for management, design, construction, and quality management of the Project. Through the indicated relationships and discipline working groups, our team will ensure design consistency and construction methods that exceeds VDOT quality requirements. **DBPM: Ed Hilferty** will be responsible for the overall project design and construction. To support effective communication, all key personnel (QAM, RCE, DM, CM, and LUCM) and three value-added positions (Public Affairs (PA), Safety, and Project Controls (PC) Managers) will report to Ed. This structure ensures his ability to exercise appropriate control over design, construction, quality management, and contract administration.

Ed will participate in and coordinate any required public outreach and public meetings through PA Manager Shannon Moody.

**RCE: Thomas Heil, PE** reports to the DBPM and will regularly coordinate with the DM, CM, LUCM, QAM, and TMP Manager. Tom will coordinate with the DM, design team, and VDOT to ensure design compliance, adherence to the specifications, and follow through on NEPA commitments. He will participate with design professionals, facilitate constructability reviews, and lead working group task meetings. He will maintain oversight of construction activities to approve field engineering decisions (working with the DM). Tom will work closely with TMP Manager Jerry Whitlock, to minimize traffic impacts.

**QAM: Anthony Kondysar, PE** will report to the DBPM and coordinate with the RCE, Design QA/QC Manager, and Construction QC Manager. Anthony will develop the QMP using successes from Segment II, including design package submittal sign offs from the Design QA/QC Manager, DM, RCE, and QAM. He will be supported by Lead QA Roadway and Structures Inspectors David Cropp and Chris Goss.

#### Value-Added Personnel Highlights

**Project Controls:** Since 2008, Jessica Colbert has managed project controls on five VDOT DB Projects with values from \$25M to \$2.2B. Her expertise will accelerate project delivery for I-64 Segment III.

**Safety Manager:** Sandra Genter leads Myers Safety Program in VA and since 2008 her leadership has reduced incident rates from an average of 7.07 to 0.50. Sandra will help minimize safety hazards during construction of I-64 Segment III.

**PA Manager:** Shannon Moody has led outreach on multiple high profile projects in VA and NC. She is currently supporting the I-64 Segment II community outreach efforts. On I-64 Segment III, she will continue to support VDOT's public outreach support efforts.

**Design Manager: John Maddox, PE** will serve as the Designer of Record and coordinate all design functions from NTP to final completion. He will report directly to the DBPM and coordinate with the RCE, QAM, CM, LUCM, PC, Safety, and TMP Managers to ensure collaboration during design and construction implementation. With support from Design QA/QC Manager Mark Vasco, PE, he will prepare the DQMP and oversee the design QA/QC program to ensure a cohesive, high-quality, and integrated design.

To accelerate the design, John will utilize successes of the Route 29 Solutions DB project and segment the design into east and west sections. Reporting to John are **Deputy Design Manager (DDM) Darell Fischer, PE, DBIA** and **DDM Mike Russell, PE, DBIA**. Darell and Mike will assist John by coordinating all individual design disciplines for their sections, ensuring that the design is in accordance with the contract requirements, environmental laws and regulation, and follows the procedures stipulated in the QA/QC Plan.

A staff of seven design personnel will manage project-wide design elements and report to John. Critical among these is **Colonial Parkway Coordinator Nick Nies**, who will ensure the Team mitigates any potential schedule risks due to open-ended review / comment periods. **ROW Manager Joe Skinto** will report directly to John to ensure linkage between the RW Plans, appraisals, and offers packages vetted with VDOT, coordinated with the DDMs, and updated in RUMS.

**Construction Manager Jeff Snow** will report to the DBPM and will coordinate with the RCE, CM, QAM, LUCM, PC, and Safety and TMP Managers to ensure collaboration through the construction process. Construction QC and all construction segment personnel will report to Jeff. To ensure design understanding and implementing the design in construction, he will coordinate with the DM and RCE to

ensure proper construction planning and implementation. **Deputy Construction Manager (DCM) Paul Phillips** (east section) and **DCM Ben Bushey** (west section) will work closely with the DM and RCE to assist with constructability reviews. They will oversee segment construction operations including maintenance of traffic, utilities, and roadway construction and will coordinate QA and QC inspection. Jeff, Paul, and Ben each hold current RLD and ESCCC certifications.

**Lead Utility Coordination Manager: Scott Styfco** will report to the DBPM and work closely with utility companies and the DM, RCE, CM, and design/construction utility coordinators. Scott will focus on impact avoidance measures through innovative design and practical construction methods. Scott helped eliminate several utility conflicts on I-64 Segment II, allowing the project to progress without utility delays.

**TEAM INTEGRATION AND COMMUNICATION** – The MWJV Team has been fully integrated from the start of the SOQ process. Discipline work groups (DWGs) consisting of design and construction team members collaborated to determine the project risks and will continue through design development, permit acquisition, and construction to elicit innovation, accelerate the schedule, and complete the project under budget. These DWGs will meet regularly to progress a quality design in which constructability and schedule are integrated. Early design concepts, periodic design reviews, constructability reviews, and design comment resolution meetings will all involve extensive working sessions. Weekly design meetings will begin during the RFP phase and will embed MWJV staff with the design team. During construction, MWJV will collocate onsite and will maintain this consistent project presence until the project is complete.

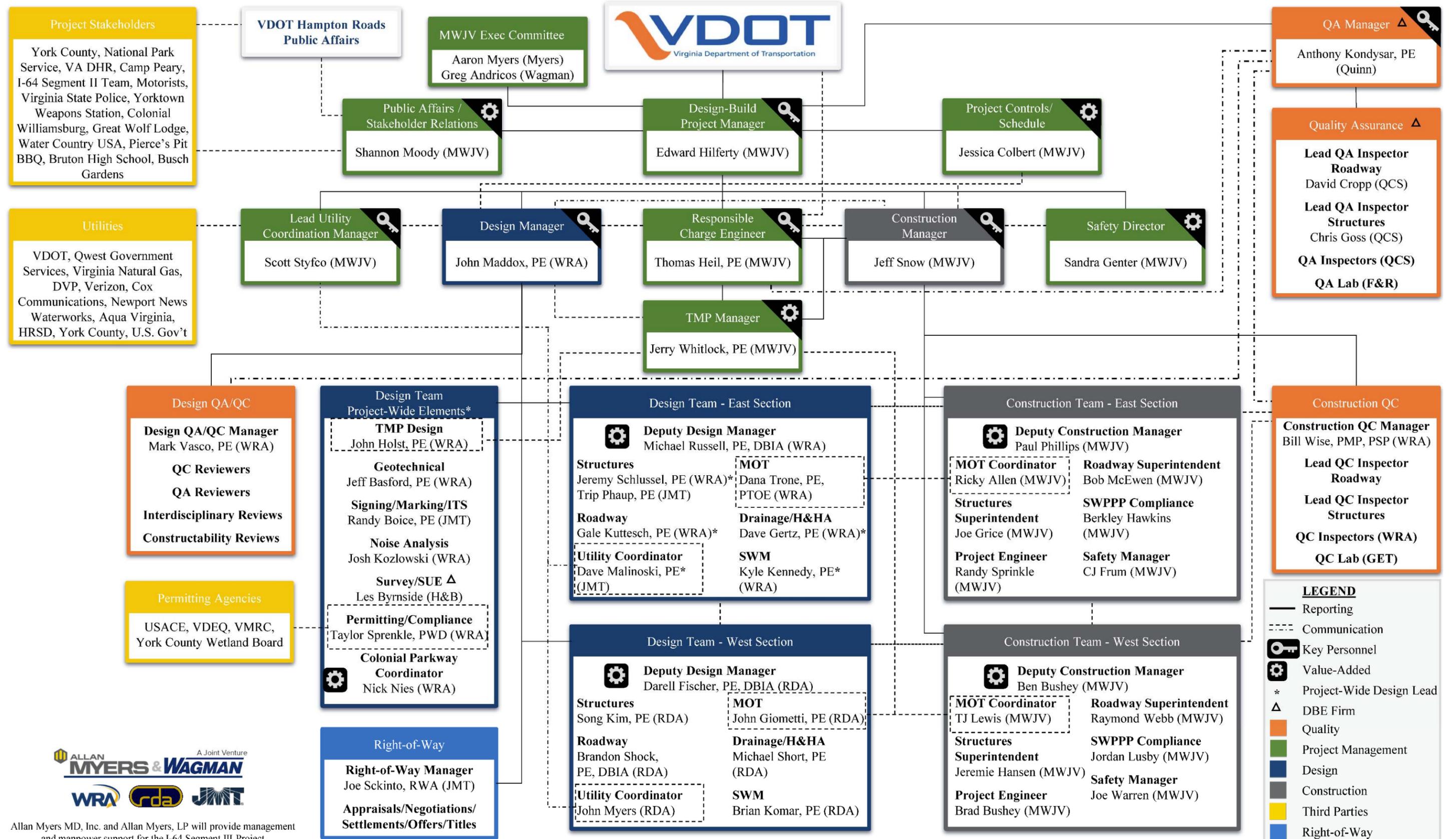
### Value-Added Personnel Highlights

**Deputy Design Managers:** *Darell Fischer has 31 years of experience and has managed five VDOT DB projects with Myers, including the I-64 Segment II DB Project. Mike Russell has 28 years of experience managing major VDOT transportation programs and was the DM for Berkmar Extension of the Route 29 Solutions DB Project. Their expertise will support John in accelerated and quality design of the I-64 Segment III Project.*

**Colonial Parkway Coordination:** *Nick Nies' environmental and NEPA experience navigating a Programmatic Agreement (PA) with FHWA, VDOT, NPS, and VDHR will be invaluable when implementing the PA stipulations associated with the Colonial Parkway.*

### Value-Added Personnel Highlights

**Deputy Construction Managers:** *Paul Phillips' experience on Odd Fellows Rd and Ben Bushey's experience on I-64 Segment II DB projects will support Jeff to ensure high quality, safe, accelerated construction for I-64 Segment III.*



Allan Myers MD, Inc. and Allan Myers, LP will provide management and manpower support for the I-64 Segment III Project

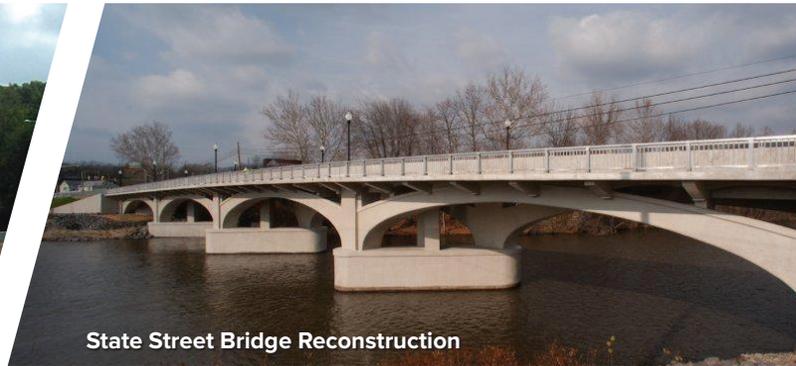


# 3.4

## EXPERIENCE OF TEAM



I-95/I-695 Interchange



State Street Bridge Reconstruction



Route 61 Bridge Replacement



I-276 Interstate Widening and Reconstruction



## PROJECT EXPERIENCE WITH SIMILAR SCOPE AND COMPLEXITY

The MWJV Team brings a history of successful DB projects, extensive bridge and interstate widening expertise, and recent experience with VDOT's Hampton Roads District.

**MWJV TEAM STRENGTH** – *MWJV has extensive experience designing and constructing more than 40 recent bridge and interstate widening projects and over 150 combined years of constructing bridges and bridge widenings.*

This experience includes the Woodrow Wilson Bridge (WWB), I-95 Express Toll Lanes, I-95/I-695 Interchange, Intercounty Connector Contract A, and I-276 Widening projects, as well as projects on and over numerous interstates including I-64, I-76, I-80, I-81, I-83, I-85, I-95, I-295, I-476, I-495, and I-695.

Our interstate and bridge construction experience has created a depth of institutional and personnel knowledge on how to efficiently execute quality work on high traffic volume interstate construction projects. In addition, the MWJV provides cost and schedule control for the Project through our ability to self-perform all major work elements including earthwork, drainage, full depth reclamation, paving, bridge widenings (including historic arch structures), foundations, cast-in-place concrete, support of excavation, and deck overlays.

The MWJV team members have been responsible for more than 50 DB projects across the mid-Atlantic region. This experience includes \$138M I-64 Segment II, \$470M ICC Contract A, \$580M ICC Contract B, \$105M MD 404

Widening, \$96M Route 29 Solutions, \$31M I-95 Express Lanes Extension Southern Extension, \$31M Fall Hill Avenue Widening and Bridge over I-95.

**DESIGN AND TEAMING EXPERIENCE** – *WRA, JMT, and RDA have extensive DB experience with VDOT and with Myers/Wagman. Collectively, they have provided lead or significant DB design services for more than 25 projects and have worked with Myers and Wagman on 10 recent DB projects* including the WWB, Route 7 over Dulles Toll Road, I-581/Elm Avenue, I-64 Segment II, and MD 404 DB projects. This shared experience of our firms and key/value-added staff working together provides an integrated team with recent successful experience and a proven history of success.

WRA is especially experienced with interstate improvement projects in Virginia having worked on nearly every interstate corridor in the state. Most of those projects were personally managed by our Design Manager for this project, John Maddox. Our team members have completed over 50 recent interstate and bridge and interstate widening projects including the I-81 over Maury River, I-81 over Buffalo Creek, I-81 over New River, I-95/I-495 at Arena Drive from MD 202 to MD 214, I-64 Segment II, and the I-95 Express Lane Southern Extension. A WRA/JMT joint-venture performed comprehensive preliminary and final design engineering for a new \$215 million interstate interchange in conjunction with the \$1B WWB Replacement and the \$1B National Harbor projects. WRA has enjoyed past teaming experience with RDA on the Route 29 Solutions and GMU Campus Connector DB Projects.

**MILITARY COORDINATION EXPERIENCE** – The proximity of Camp Peary to the Project makes it very likely that some level of coordination will need to take place with the base. The MWJV Team has the experience needed to make sure that this coordination takes place without causing project delays. Having been responsible for the construction of more than 30 secure site projects in the last 10 years, Myers and Wagman have proven to be true construction partners for the federal government and military. Projects have been successfully constructed and coordinated at Fort Belvoir, Quantico Marine Corp Base, Andrews Air Force Base, Dover Air Force Base, Fort Evans, Naval Station Norfolk, and Flight 93 Memorial. Our management team and personnel are sensitive to responding to requests and confidential coordinated efforts.

### MWJV Team Experience



150 Years



Bridge Building  
Experience on 10+  
Major Interstates



30 Secure  
Site  
Projects

50 Design-  
Build Projects



Design Experience  
on every Major  
VA Corridor



## QUALITY DESIGN SUBMITTALS

Successful quality design submittals have been provided by MWJV team members for numerous DB projects including the I-95 Express Lanes Southern Extension, I-95/Temple Avenue, Walney Road Widening, and Route 7 Bridge projects. For this Project, WRA will utilize the proven design QA/QC processes that have allowed many of WRA’s DB projects to advance on significantly accelerated schedules, such as the Berkmar Element of Route 29 Solutions and I-95 Express Lanes Southern Extension.

***Our team members strive to exceed VDOT’s minimum requirements for design QA/QC process. On previous projects, including the I-64 Segment II DB project, we have provided pre-submission design sign-offs from the Design QA/QC Manager, the DM, the RCE, and the QAM.*** In addition, we have been successful in developing designs that are submitted in a phased approach to allow specific construction operations to start in advance of design completion, expediting project delivery on several DB projects. On the Walney Road and I-95/Temple Ave. projects, plan approvals were obtained in two submissions.

Based on our team members’ recent experience with the Hampton Roads District, the MWJV Team will implement specific actions in order to provide the quality submittals the District is looking for including:

Best Practices to Ensure Quality Design Submittals	Benefits to the Department
<ul style="list-style-type: none"> <li>• Hold an early coordination meeting to review the approach to VPDES approvals and permit coverage.</li> </ul>	<ul style="list-style-type: none"> <li>• Timely VPDES approvals; advanced NtCC for limited activities; accelerated schedule</li> </ul>
<ul style="list-style-type: none"> <li>• Provide a breakdown of Advanced Work Packages for which we will seek limited NtCC in advance of final design approval.</li> </ul>	<ul style="list-style-type: none"> <li>• Clear design package approval expectations; advanced submittal schedules; reduced revisions and resubmissions for approvals</li> </ul>
<ul style="list-style-type: none"> <li>• Coordinate directly between discipline working groups and Department reviewers through discipline kickoff meetings, over the shoulder reviews, and weekly calls.</li> </ul>	<ul style="list-style-type: none"> <li>• Expedited design review/approvals; influence on the design development; open dialogue on key issues</li> </ul>
<ul style="list-style-type: none"> <li>• Provide the Department with regular design schedule updates including when packages will be submittal as well as anticipated approval timelines.</li> </ul>	<ul style="list-style-type: none"> <li>• Improved reviewer resource planning; the ability to influence the design progression planning at project commencement</li> </ul>
<ul style="list-style-type: none"> <li>• Allocate adequate resources and time in the design schedule for thorough QA, QC, interdisciplinary, and constructability reviews.</li> </ul>	<ul style="list-style-type: none"> <li>• High quality design submissions; reduced discrepancies between reports and plans; reduced comments and resubmissions</li> </ul>

## LIMITING IMPACTS AND MINIMIZING CONGESTION

The MWJV has extensive experience limiting construction impacts for the traveling public and minimizing congestion on more than 40 interstate widening projects. This MOT experience has included working entirely behind barrier, utilizing moveable barrier, and implementing short-term lane closures. Time-of-day restrictions and detours, if necessary, are evaluated and developed to meet project needs and expedite construction.

On the WWB project, WRA took a lead role in coordinating multi-phase MOT plans and multiple construction project phasing to ensure congestion along I-95/I-495 was minimized during construction. Maintaining access to interchange ramps was a priority to minimize detouring of traffic.

From our team members’ experience on I-64 Segment II, we understand the specific traffic conditions along the corridor and the importance of minimizing impacts to traffic as much as possible. Specific approaches to minimize congestion on this project will include:

**Understanding of I-64 Corridor Traffic**

*From our team members’ experience on I-64 Segment II, the MWJV understands the magnitude of the traffic along this corridor as well as the importance to minimizing impacts to traffic for the benefit of both the traveling public as well as the construction team.*

- Minimizing impacts through design optimization by maximizing the reuse of onsite soils with the intent of keeping construction traffic off the roadway. Ingress and egress locations will be specific areas of focus during the design phase.
- Proactively approaching maintenance by identifying and repairing potential existing conditions that could lead to pavement failures prior to switching traffic. Our Team will investigate and identify potential issues that are not visible on the surface. Areas of focus will include settlement of bridge approach slabs, underdrain blockages, and distressed pavements that may be on the verge of failure.
- Utilizing night work hours to limit operations that require a significant amount of construction vehicles traveling in and out of the work zone. Mass concrete pours, paving, and offsite borrow/disposal of soils are key operations that will benefit from off-peak shift work.

**IMPLEMENTING AND MAINTAINING AN EFFECTIVE QA/QC PLAN**

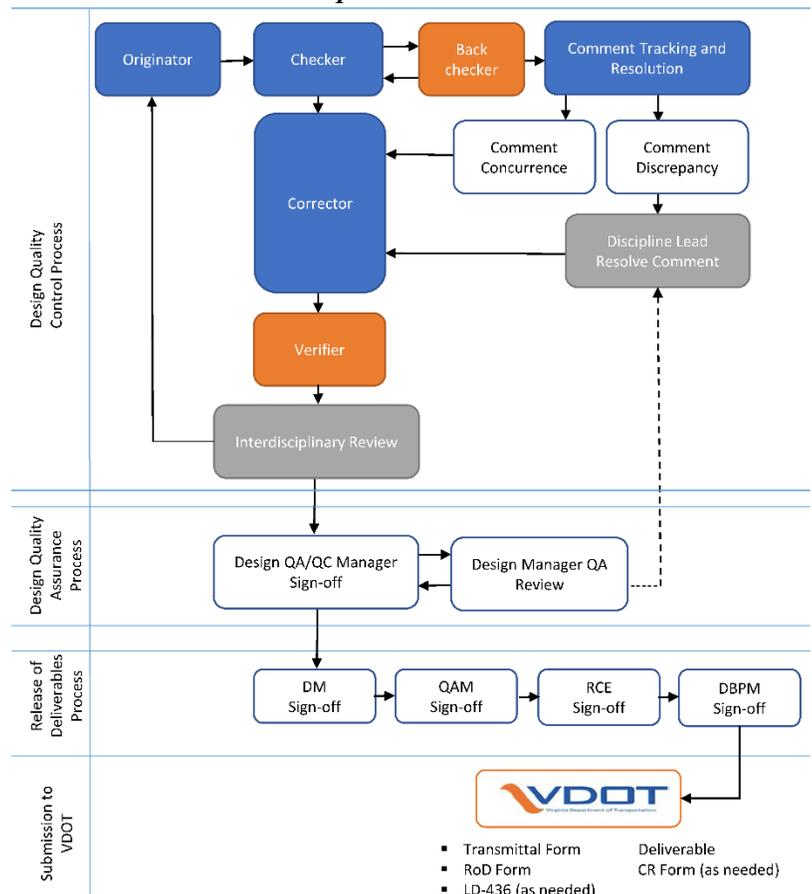
The MWJV members have experience developing quality management plans with minimal comments from the Department on projects ranging from \$2M to \$2.3B. We use detailed work plans for all construction activities that describe the work to be performed, all resources needed, and a detailed execution plan including all witness and hold points for both QA and QC. Daily coordination meetings help QA and QC staff plan for proper inspection, testing, and resource assignment - an approach that is working extremely well on the Route 7 over Dulles Toll Road and Odd Fellows Road DB projects.

On I-64 Segment II we have implemented issuance of four types of schedules that support this communication: 1) a monthly update to the project CPM; 2) weekly updates to the 5-week look-ahead schedule; 3) weekly we issue a one-week QC schedule; 4) daily we issue a schedule of work confirmed to be occurring the next day. These schedules

are distributed to all QC, QA and IA personnel to give all parties adequate time to plan their inspection services. The weekly QC schedule and 5-week look-ahead are also reviewed at a weekly coordination meeting attended by both construction and QA/QC personnel. In addition, QC and QA meet weekly to review open deficiencies and ensure that action plans are in place to correct current items and prevent similar future items.

The design team consists of seasoned professionals that have been providing sound engineering solutions to the Department for decades on hundreds of projects and view themselves as extensions of the Department’s staff. This process has provided WRA the ability to achieve DB work package approvals with typically only one round of review comments. By performing QC and QA inspections services for both contractors and the Department, WRA recognizes the importance of quality design submittals to help make the construction process advance with no unanticipated issues.

**Plan Development / Review Process**



## USE OF INNOVATIVE DESIGN SOLUTIONS

The MWJV Team has extensive experience presenting innovative design solutions and using the ATC process. During the pursuit, our integrated team will conduct design development work groups to develop innovative solutions, some of which may require an ATC. An ATC is used to reduce cost; improve schedule; reduce maintenance costs; and minimize impacts to the environment, right-of-way, and the traveling public. Below are several innovative solutions that our team members have used on other projects:

- Reduced the Contee Road Bridge over I-95 by 82 feet reducing costs and improving the project schedule by four weeks while reducing long-term maintenance requirements.
- Modified a three-span bridge over CSXT to a two-span bridge reducing cost and reducing bridge construction by one month and bridge maintenance costs and reduced future settlement concerns by increasing surcharge heights at bridge abutments.
- Redesigned an interchange on the ICC eliminating three structures and over 35,000 sf of MSE walls; all elements removed from future maintenance requirements.
- Eliminated longitudinal joint of bridges, reduced the number of bridge girders and redesigned abutments on the Richmond Airport Connector; saving cost, time and maintenance.
- Redesigned MOT phasing to reduce the number of major traffic switches on I-95.
- In conjunction with VDOT, designed and implemented 1<sup>st</sup> Alternate Abutment to allow for jointless bridges, which eliminates joint repairs, beam end repairs, and bearing replacements.
- Designed a “Green Retaining Wall” on the I-95 Express lanes eliminating a major stream impact, stream restoration, and maintenance.
- Replaced an existing 60” culvert under I-581 with innovative pipe products (Hobas pipe) that allow the pipe to operate efficiently at lower grades, which helped overcome micro-tunneling slope issues when unknown debris was encountered during construction.
- Used Reinforced Soil Slope (RSS) walls on I-95/Temple Ave project to avoid significant undercuts by distributing loads into the slope through geogrid rather than point loading foundations which provided cost and schedule savings.

### 3.4.1 WORK HISTORY FORM SUMMARY

The MWJV Team has included work history forms in Appendix 3.4.1 which convey our experience and the successful delivery of projects with similar scope and complexity. For the Lead Contractor, the projects presented are bridge and interstate widening projects which range up to \$173M in value, one of which conveys shared work experience with our Lead Designer and design team. For the Lead Designer, the projects selected are bridge and interstate widening projects which range up to \$205M in value, one which is a DB project and another which conveys shared work experience with the MWJV team members.

Project Relevance	I-276 Widening	I-95/I-495/I-295 WWB	I-95 Express Toll Lanes	I-95/I-495/I-295 WWB	I-81 Bridges	MD 210 Interchange
Firm(s)	Myers, Wagman	Wagman, WRA, JMT	Myers	WRA, JMT, Wagman	WRA	WRA
Construction Value	\$173M	\$105M	\$53M	\$205M	\$45M	\$82M
Key and Value-Added Personnel	✓		✓	✓	✓	
Bridge and Interstate Widening	✓	✓	✓	✓	✓	
Pavement Reconstruction	✓	✓	✓	✓	✓	
Major Culvert Extensions	✓	✓	✓	✓		✓
Complex Maintenance of Traffic	✓	✓	✓	✓	✓	✓

# 3.5

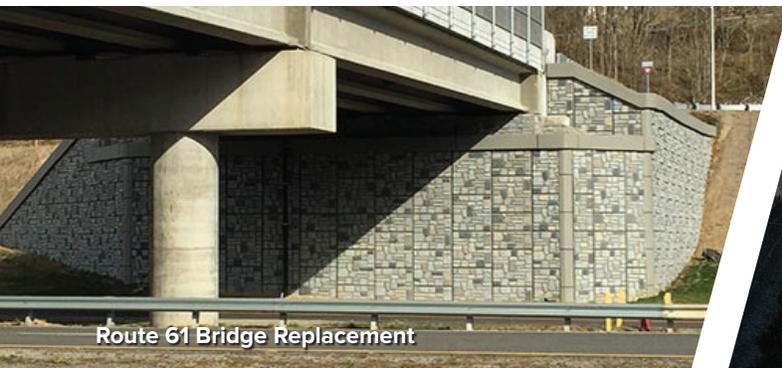
## PROJECT RISK



I-95/I-695 Interchange



State Street Bridge Reconstruction



Route 61 Bridge Replacement



I-276 Interstate Widening and Reconstruction

The MWJV Team has designed and constructed more than 40 recent bridge and interstate widening projects and has been responsible for more than 50 DB projects across the mid-Atlantic. Developed from this experience, our proactive approach to risk management for the I-64 Segment III Project will include:

- Accelerating project delivery and early occupancy of capacity improvements by segmenting design and construction using the extensive design and construction resources of the MWJV Team;
- Accomplishing design efficiencies through Alternative Technical Concepts (ATC) developed from first-hand local experience and an understanding of defined design approval expectations;
- Controlling construction schedule and minimizing costs by self-performing all major work including earthwork, drainage, retaining walls, sound barriers, bridge construction and rehabilitation, soil cement, asphalt pavement and maintenance of traffic;
- Minimizing construction traffic impacts by balancing the earthwork, strategically locating ingress and egress points, and implementing lessons learned from the I-64 Segment II project;
- Establishing a safe environment for both workers and the traveling public through our relentless commitment to worker and public safety, as evidenced by best-in-class incident rates;
- Reducing congestion by expediting construction, focusing on early safety improvements through construction phasing, and scheduling operations during off-peak hours;
- Supporting a robust public outreach program and coordinating with project stakeholders to increase public safety and mitigate traffic issues.

In consideration of the risks most relevant and critical of the Project, the MWJV Team reviewed the project documents, visited the project site, and considered the conditions and challenges of our local projects experience. We considered the project risks associated with geotechnical conditions, environmental permitting, and utilities, but ultimately selected to present the **widening of the bridges over Colonial Parkway, maintenance of traffic, and stormwater management**. These three risks will most significantly impact the Project's success for end users through schedule delays, design and construction inefficiencies which inflate the project cost, and present safety concerns for the public during construction.

### **RISK 1 - WIDENING OF AESTHETIC ARCH BRIDGES OVER COLONIAL PARKWAY**

**WHY THE RISK IS CRITICAL** – The proposed widening of the two 1960's earthen filled reinforced concrete arch bridge structures over the Colonial Parkway presents a series of interdependent issues which include design, aesthetics, third-party approvals, maintenance of traffic, and construction challenges. Failure of any interdependent issue will impact the project schedule and cost:

- *Design* – The two existing arch bridge structures were designed under the 1961 AASHTO Standard Design Specifications which did not take into account various design elements that are accounted for in today's codes. These items include, but are not limited to, shear design, earthquake loads, and foundation/geotechnical design. Widening these unique structures and incorporating LRFD design codes could have unknown effects of tying differing design methodologies into a single structure.
- *Aesthetics* – The Colonial Parkway is a historic resource listed on the National Register of Historic Places (NRHP). The proposed widening of these two arch bridge structures will require removal and reuse of portions of the existing brick elements which have weathered for over 40 years and the final details will be required to match the Flemish Bond Brick pattern to create a visually uniform appearance.
- *Third Party Approvals* – With the Colonial Parkway being part of the National Park Service (NPS) and listed on the NRHP, coordination of the design commitments (as outlined in the Programmatic Agreement) with third party



reviewers/ approvers will be necessary. The amount of time and effort that will be needed is unknown, as well as which agency will have final approval and decision making authority, could significantly impact the construction schedule.

- *Maintenance of Traffic (MOT)* – The two primary concerns that will impact the traffic during widening are safely maintaining traffic on I-64 during construction and minimizing construction impacts for Colonial Parkway traffic. On I-64, a temporary parapet must be anchored into the concrete pavement since there is no bridge deck present. On Colonial Parkway, the RFQ requires the project to have a cast-in-place arch, which will require significant temporary falsework.
- *Construction* – The unique nature of the existing bridges will require construction techniques that are not utilized for modern structures. Challenges include details for the installation of the brick along the underside and façade of the new arch, installation of the concrete strut (tension tie) between the abutment footings, formwork to construct the cast-in-place arch, installing a joint that will enable the brick veneer to stay in place without long-term issues, and obtaining the curved brick for the top of the parapet to match portions which remain in place. These items require specialized construction techniques and increased construction timeframes compared to more conventional bridge designs.

**IMPACT TO THE PROJECT** – Widening these arch bridge structures presents risk to both VDOT and the DB Team and could impact schedule, cost, traffic, public safety, and aesthetics of the Project as follows:

- *Design* – Incorporating the newer LRFD design codes for the widening may impact the ability to maintain current member sizes and limit the ability to perform a complete system analysis resulting in a more robust design in the widening portion when compared to the existing structure.
- *Aesthetics* – Matching the aesthetics of the existing arch with material selection and colors using currently available materials can be costly and subjective. Differences in appearances may not be noticeable based on small samples; however, there can be significant visual differences in the final product. Availability of the appropriate and acceptable materials and lead times can have significant impact on cost and schedule.
- *Third Party Approvals* – Coordination with third party reviewers to obtain approvals of the design, materials, and processes will be a key aspect to ensure the prompt fabricating and delivery of materials.
- *Maintenance of Traffic* – MOT on I-64 while widening the existing arch structure will be complicated by the extent of removal required to adequately tie into the existing arch structure and the amount of fill removal required to access the portions to be removed. This could pose a problem due to the close proximity of the bridges over Lakeshead Drive. Maintaining traffic along Colonial Parkway will require coordination with third-parties and frequent notifications to park visitors.
- *Construction* – The non-conventional construction that will be required to construct a cast-in-place brick veneer arch could be costly and time consuming due to the non-standard formwork and falsework. The process will be labor-intensive and will impact cost and schedule. If necessary, salvaging existing bricks from portions of the structure will impact the project cost and schedule.

**MWJV TEAM MITIGATION STRATEGIES** – The MWJV Team has worked on numerous complex bridge projects throughout the Mid-Atlantic region and possesses extensive experience designing and constructing similar projects. Our Team will employ the following mitigation strategies to mitigate this risk:

- *Design* – We will investigate how the existing arch was designed and how the new LRFD design requirements for the widening will affect an overall system when the design methodologies are combined into one structure. A 3D FEM model will be developed which will take into account creep and shrinkage of the original arch and compare it to a model with the addition to the new arches, as was used by our team members for complex structural analysis on the Delta Frame Bridges on I-64 over Maury River. We will investigate potential alternative foundation designs to reduce impacts along Colonial Parkway with an integrated approach that involves bridge designers, specialty foundation designers, and construction experts to evaluate foundation types such as micropiles, drilled shafts, and auger cast piles. The proposed design will incorporate the best methods to minimize the foundations, reduce foundation installation

effects on the existing structures, and potentially eliminate the strut.

- *Aesthetics and Third Party Approvals* – Mitigation of these two issues is intertwined and depends on working closely with multiple third-party agencies. Our team will work with VDOT to prepare a communication plan that highlights key points of contact between VDOT, NPS, VDHR, and other stakeholders as identified; required review and comment timelines for all commitments outlined in the PA; and a matrix to document comments/responses. We will utilize historical masons and architects to establish the criteria for review and identify the most appropriate materials for an aesthetically pleasing structure that blends in with the existing arch structure. We will provide a mock up for review and approval. We will also ensure that the landscape architecture is restored to provide the “meticulously crafted landscape that integrate the region's natural and cultural resources into a memorial roadway of the American colonial experience.”
- *Maintenance of Traffic and Construction* – MOT for the arch structure widening will be optimized to minimize traffic impacts, construct the widening efficiently, and preserve the historical characteristics of the existing structures. Our team will investigate pre-casting the widened arches in the median and transporting them into place. This transported structure approach was utilized by our team members on the Nursery Rd. over I-295 project in MD. This approach would prevent specialized formwork from impacting Colonial Parkway traffic and would limit impacts to structure placement, closure pours, and aesthetic treatments. Qualified historical masons and architects will be employed for removal and re-use of the existing brick.

***NPS Coordination Experience***  
*MWJV team members worked with the National Park Service on projects in VA, MD, DC, PA and NJ including the Richmond National Battlefield and Petersburg National Battlefield projects in VA.*

***Historical Bridge Expertise***  
*MWJV members used historical masonry efforts for repointing and rebuilding of the 1880's abutments during the superstructure replacement for the Washington Ave. Bridge in Newport News. Our team members also preserved the historical four-span concrete arch structure on the State Street Bridge in Berks County, PA by replacing a new façade on the archways with highly skilled carpentry crews.*

**ROLE OF VDOT AND OTHER AGENCIES** – The MWJV Team will look to VDOT for oversight and guidance for coordination with NPS, VDHR, and other agencies to expedite approvals of bridge elements and aesthetic aspects required by the contract. Prompt and complete reviews/approvals along with early and frequent communication will ensure the continuous prosecution of the work to meet project schedules.

## **RISK 2 - MAINTENANCE OF TRAFFIC**

**WHY THE RISK IS CRITICAL** – I-64 is the primary route between Richmond and Hampton Roads and provides access to several major tourist attractions including Busch Gardens, Colonial Williamsburg, Great Wolf Lodge, and Water Country USA. I-64 is also a strategic military asset as the primary route serving Fort Eustis, Langley Air Force Base, Camp Peary and Yorktown Naval Weapons Station. With an average annual daily traffic volume (AADT) of 70,000 vehicles per day (VPD) and even higher volumes during the summer, the ability to maintain safe and efficient traffic operations while providing adequate space to safely widen and reconstruct I-64 is a critical aspect of the Project. Reduced lane widths, shoulder closures, and traffic shifts will reduce capacity and may cause unstable flow during peak periods, especially during the tourist season. Many construction activities will further impact the traffic conditions such as construction traffic entering and exiting the work area, nighttime lane closures for shoulder strengthening, bridge widening, pier protections and reconstruction of the bridges over Queens Creek.

Some of the specific MOT challenges associated with the I-64 Segment III Project include:

- Construction of the bridges over Queens Creek will require significant traffic shifts on the bridge approaches. The existing median bifurcation on the west side of the bridge does not allow for the

construction of a typical crossover.

- Long term ramp closures at Exits 234 and 238 may be necessary to safely and efficiently reconstruct the existing pavement at these interchanges. This issue is exacerbated for the on-ramp from NB Rte. 143 to WB I-64 (Exit 238) due to the reduction of shoulder width. Maintaining adequate weaving space between the WB loop ramps at Exit 234 will be a challenge – similar to the loop ramps at Exit 242 on Segment II.
- Traffic patterns on major cross streets such as Rte. 143 and Route 199 and parallel corridors such as Route 60 may be impacted as motorists seek alternative routes to avoid the construction.

**IMPACTS TO THE PROJECT** – Providing space for safe and efficient construction of the Project can adversely impact traffic flow and compromise motorist safety. Specific impacts that are anticipated include:

- Full-depth reconstruction of the existing pavement requires long-term shifting of traffic entirely off of the existing travel lanes for pavement replacement, which limits space for incident management and may require additional pavement to provide adequate travel lanes and space for barrier service.
- Shifting traffic may require shoulder strengthening utilizing nightly lane-closures for several weeks. Setting and shifting barrier to protect the work area will also require nighttime lane closures.
- Closing/eliminating shoulders reduces highway capacity leading to congestion in the project area.
- Reduced traffic space will make it more difficult for emergency responders to clear incidents which can result in long queues that may cause secondary incidents.
- There may not be adequate space between the piers at Rte. 143 and W. Queens Lake Road to reconstruct the existing pavement without a long-term lane closure.
- Construction traffic entering and exiting work areas will disrupt traffic flow and present a safety concern.

#### **MWJV TEAM MITIGATION STRATEGIES**

- *Developing a Comprehensive TMP* – The MWJV Team will develop an MOT plan that minimizes traffic shifts while providing as much space as possible to safely maintain traffic. Consideration will be given to the benefits of maintaining useable shoulders and other enhancements.
- *Upgrading Outside Shoulders* – We will investigate the existing shoulder condition and upgrade the shoulders where necessary to support traffic. Restricting trucks to the inside lane will also be considered to reduce the loading on the temporary shoulder strengthening.
- *Variable Work Zone Speed Limit* – The MWJV Team will work with VDOT to investigate the use of variable speed limits within the Project. This strategy allows for lowering the speed limit for nighttime lane closures and implementing traffic shifts. Studies have shown that motorists are more likely to obey lower speed limits in work zones where variable speed limits are properly employed.
- *Median Access from Cross Streets* – The MWJV Team will look at opportunities for creating temporary ramps to provide access to the median work area from the cross streets in order to minimize the number of construction access points along the mainline left lanes. The impacts of construction traffic on these roadways will need to be carefully considered.
- *Safety Enhancements* – Simple, low-cost enhancements such wider pavement markings, raised reflect pavement markers, rumble strips, contrast markings on the concrete pavement, and 24-hour on site towing service can greatly improve safety through the work zone.
- *Shifting the Crown Point* – Shifting the widening further into the median provides opportunities for improving MOT on the Project. Shifting the widening 4' towards the median, which matches the alignment on Segment II, allows several MOT enhancements including reduced outside shoulder traffic shifts, increased distance to barriers, a full-width shoulder along one side during construction, and more space for temporary drainage needs during construction.

#### ***Shoulder Strengthening***

*The MWJV will investigate mitigating MOT challenges by providing full-width shoulder strengthening throughout the Project in order to:*

- *Provide a uniform surface across the shifted lane and shoulder*
- *Allow alignment adjustments to address unexpected conditions*
- *Eliminate the weak point at the paving joint*

- *Optimizing the Replacement of the Queens Creek Bridges* – To reduce the number of traffic shifts and compress the schedule, the MWJV Team will investigate multiple non-traditional strategies for replacing the bridges over Queens Creek such as top down construction and the use of pre-cast units.
- *Modifying Interchange Configurations* – We will analyze temporary modifications at the Route 199 interchange including a crossover to provide full movement access at the WB diamond ramps to temporarily close the loop ramps at Exit 234.

**ROLE OF VDOT AND OTHER AGENCIES** – The MWJV Team will work closely with VDOT in the MOT plan development to appropriately address VDOT’s concerns through coordination meetings and over-the-shoulder reviews. We anticipate VDOT will take an active role in communicating progress and real-time travel information that affect motorists and other stakeholders during construction.

### **RISK 3 - STORMWATER MANAGEMENT**

**WHY THE RISK IS CRITICAL** – The Project requires several dozen sites that are suitable for stormwater management BMPs, designing the BMPs to meet the VSMP requirements adhering to Part IIB technical criteria as required on I-64 Segment II, and constructing the BMPs in the limited right-of-way area while coordinating with phased roadway construction. The following elements contribute to the SWM risk for the Project:

- *Water Quality* – The water quality requirement will be a significant challenge due to the full depth reconstruction of the existing pavement in addition to the planned widening. As part of the land disturbance, the existing lanes will be subject to a 20% reduction of phosphorus. The new lane and widened paved shoulder on both sides of the interstate increase the impervious area by 65%, and the Project will have to account for all of the increased phosphorus from this pavement. Additionally, York County has several Watershed Protection Areas that overlap with approximately half of the Project. Post development runoff will have to meet the county's requirement to release no more than 90% of the pre-development phosphorus load at each individual outfall in those areas, requiring the construction of on-site BMPs at those outfalls. Altogether, the Project will need to account for approximately 165-175 pounds of phosphorus reduction.
- *Water Quantity* – With a total length of 8.2 miles, the Project will have dozens of stormwater outfalls impacting three different Virginia 6th order HUC watersheds. The majority of these outfalls are natural stormwater conveyances which have to satisfy the Energy Balance Equation, including a 20% improvement factor and require onsite SWM detention to meet the VSMP water quantity requirement.
- *Limited Feasible BMP Locations* – The area surrounding the Project is poorly suited for the stormwater BMP’s that will be necessary due to high groundwater and wetlands in low lying areas. Much of the project is on a flat grade, which will further complicate the collection and treatment of stormwater. The current use of the areas surrounding the Project (commercial and residential development, Waller Mill Park, Camp Peary, Colonial Parkway, etc.) further constrain the potential BMP sites, and will likely result in a significant number of right-of-way acquisitions being required.

### **IMPACT TO THE PROJECT**

- *Water Quality* – Construction cannot begin until the DB team receives a VPDES permit. To obtain a permit, the location, type, and capacity of each BMP must be identified, and the plans must include enough BMPs to meet the phosphorus reduction requirement. As such, the stormwater management plan is a significant task on the critical path schedule. Furthermore, the most beneficial BMPs for water quality under Part IIB often require engineered soils, complicated construction procedures, and implementation phasing with adjacent construction – all of which present a potential schedule impact.
- *Water Quantity* – Under Part IIB of the VSMP regulations, the BMPs that have the highest phosphorus reduction efficiency are often not able to meet the water quantity requirements, while the BMPs best suited to detain large volumes of runoff do not have a high phosphorus reduction efficiency. The capabilities of the different BMPs often leads to a “treatment train” approach to stormwater management,

where two or more BMPs are constructed in sequence in a single outfall watershed. Many of the outfalls on the Project will require a SWM treatment train due to the 20% improvement factor of the energy balance equation at natural channel outfalls. The water quantity requirement, specifically the energy balance equation, will be the determining factor in identifying right-of-way acquisition needs for stormwater management.

- *Limited Feasible BMP Locations* – Due to the project location, there are few suitable locations within the existing right-of-way. The location of suitable BMP locations will be an important design element and any additional right-of-way that is needed could impact the project schedule and budget.

**MWJV TEAM MITIGATION STRATEGIES** – The MWJV Team has extensive experience with the large scale SWM planning, design and construction, and the new VSMP regulations which includes WRA and RDA’s recent success with the Route 29 Solutions DB. Our Team will mitigate this risk early in project development to ensure there is no impact to the schedule by planning for SWM constraints in the very earliest of design stages.

***Early SWM Investigation***  
*Building on lessons learned from I-64 Segment II, the MWJV Team will conduct early, expansive, and detailed SWM investigations for all potential locations to provide an accurate picture of treatment capabilities through the use of groundwater wells and piezometers.*

- *Water Quality* – A stormwater management plan will be developed which identifies the best suited locations and most appropriate type of BMPs based on the cost per pound of phosphorus reduction. The SWM plan will take advantage of a combination of low-cost BMPs, such as grass channels, and high efficiency BMPs, such as bioretention. Additionally, the plan will include the purchase of the maximum number of nutrient credits allowed by the regulations. Our primary goal will be to meet the strict requirements for Water Quality, yet still provide the Department with BMPs that require the least amount of long term maintenance. The MWJV Team has assigned a team of experienced hydraulic engineers, including Dave Gertz (WRA) and Mike Short (RDA) to focus on preparing the SWM plan to submit for a VPDES permit as soon as practicable. Dave and Mike have extensive experience in developing accelerated work packages that meet both the regulations and permit requirements while allowing construction activities to begin early.
- *Water Quantity* – Each outfall will be evaluated and the design team will determine the approximate footprint of the storage volume required to satisfy the energy balance equation. At outfalls where sufficient space is not available, we will explore options to reroute portions of runoff to other outfalls, improve the outfall channel with natural design concepts, or use smaller scale detention, such as check dams, in series, and grass swales throughout the outfall watershed. This approach is similar to what WRA successfully employed on Berkmar Drive Extension and to what RDA followed for I-64 Segment II.
- *Limited Feasible BMP Locations* – The MWJV Team will identify and evaluate potential BMP locations throughout the corridor including those already identified on the conceptual plans. The search will focus on meeting the physical and engineering requirement for BMP construction, while minimizing the cost of construction and acquisition. Immediately after NTP, we will deploy our substantial geotechnical resources to investigate all potential BMP locations, and progress our design based on the soil types and groundwater encountered in order to avoid revisions. Should unsuitable locations be encountered, additional measures involving routing or unconventional basin types could be explored.

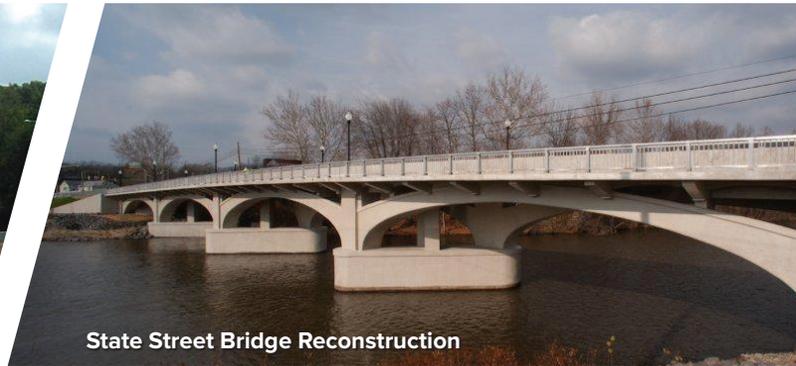
**ROLE OF VDOT AND OTHER AGENCIES** – The responsibility for meeting the SWM requirements for the Project rests with the Design-Builder. We anticipate the involvement of VDOT and other agencies will be limited to typical review and approval activities. VDOT could reduce the cost risk likely to be included by all respondents through modifying recently used RFP requirements concerning pipe rehabilitation or providing groundwater readings at potential BMP sites during the RFP process to allow teams to better assess the costs of BMP construction. To significantly reduce the potential cost and schedule implications, VDOT could also investigate the feasibility of grandfathering the Project to Part IIC technical criteria.

# APPENDIX 3.2.6

## AFFILIATED/SUBSIDIARY COMPANIES



I-95/I-695 Interchange



State Street Bridge Reconstruction



Route 61 Bridge Replacement



I-276 Interstate Widening and Reconstruction



## ATTACHMENT 3.2.6

**State Project No. 0064-965-229, Contract ID: C00106689DB97**

### **Affiliated and Subsidiary Companies of the Offeror**

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

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

<b>Relationship with Offeror (Affiliate or Subsidiary)</b>	<b>Full Legal Name</b>	<b>Address</b>
Parent	Allan Myers, Inc.	1805 Berks Road, P.O. Box 98, Worcester, PA 19490
Affiliate	Allan Myers MD, Inc.	2011 Bel Air Rd, P.O. Box 278, Fallston, MD 21047
Affiliate	Allan Myers, L.P.	1805 Berks Road, P.O. Box 98, Worcester, PA 19490
Affiliate	Allan Myers Materials MD, Inc.	638 Lancaster Avenue, Malvern, PA 19355
Affiliate	Allan Myers DE, Inc.	638 Lancaster Avenue, Malvern, PA 19355
Affiliate	Allan Myers Materials PA, Inc.	638 Lancaster Avenue, Malvern, PA 19355
Affiliate	Allan Myers Transport Co	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	American Infrastructure Investments, 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.	638 Lancaster Avenue, Malvern, PA 19355
Affiliate	Allan Myers Materials, Inc.	638 Lancaster Avenue, Malvern, PA 19355
Affiliate	Allan Myers Management, Inc.	1805 Berks Road, P.O. Box 98, Worcester, PA 19490
Affiliate	US 460 Mobility Partners, LLC	7025 Harbour View Boulevard, Suffolk, VA 23435
Affiliate	FAM Construction, LLC, a Joint Venture	9600 Great Hills Trail, Ste 200E, Austin, TX 78759

**ATTACHMENT 3.2.6**

**State Project No. 0064-965-229, Contract ID: C00106689DB97**

**Affiliated and Subsidiary Companies of the Offeror**

Affiliate	Allan Myers Wagman, a Joint Venture	301 Concourse Blvd., Ste 300, Glen Allen, VA 23059
Affiliate(Parent)	Wagman, Inc.	3290 North Susquehanna Trail, York, PA 17406
Affiliate	Wagman Construction, Inc.	3290 North Susquehanna Trail, York, PA 17406
Affiliate	Wagman Investments, Ltd.	3290 North Susquehanna Trail, York, PA 17406
Affiliate	Route 52 Constructors	3290 North Susquehanna Trail, York, PA 17406
Affiliate	404 Corridor Safety Constructors	3290 North Susquehanna Trail, York, PA 17406
Affiliate	Corman – Wagman, a Joint Venture	12001 Guilford Road, Annapolis Junction, MD 20701
Affiliate	Nova Express Lanes Constructors	3290 North Susquehanna Trail, York, PA 17406
Affiliate	Wagman/Cianbro, a Joint Venture	3290 North Susquehanna Trail, York, PA 17406
Affiliate	Intercounty Constructors	120 White Plains Road, Suite 310, Tarrytown, NY 10591

# APPENDIX 3.2.7

## DEBARMENT FORMS



**ATTACHMENT NO. 3.2.7(a)**

**CERTIFICATION REGARDING DEBARMENT  
PRIMARY COVERED TRANSACTIONS**

**Project: I-64 Capacity Improvements – Segment III**  
**Project No.: 0064-965-229**  
**Contract ID: C00106689DB97**

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.

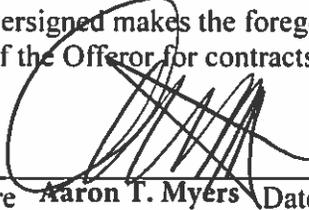
b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under 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 Aaron T. Myers Date 04/27/2017

Vice President/General Manager  
Title

Allan Myers Wagman, a Joint Venture (JV085)  
Name of Firm

**ATTACHMENT NO. 3.2.7(a)**

**CERTIFICATION REGARDING DEBARMENT  
PRIMARY COVERED TRANSACTIONS**

**Project: I-64 Capacity Improvements – Segment III**

**Project No.: 0064-965-229**

**Contract ID: C00106689DB97**

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.

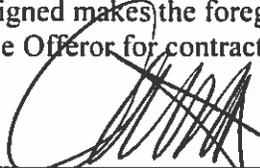
b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under 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 Aaron T. Myers Date

04/27/2017

Vice President/General Manager  
Title

Allan Myers VA, Inc.

Name of Firm

**ATTACHMENT NO. 3.2.7(a)**

**CERTIFICATION REGARDING DEBARMENT  
PRIMARY COVERED TRANSACTIONS**

**Project: I-64 Capacity Improvements – Segment III**  
**Project No.: 0064-965-229**  
**Contract ID: C00106689DB97**

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

April 25, 2017

Date

Vice President, DB/Major Pursuits

Title

**Wagman Heavy Civil, Inc.**

Name of Firm

**ATTACHMENT NO. 3.2.7(b)**

**CERTIFICATION REGARDING DEBARMENT  
LOWER TIER COVERED TRANSACTIONS**

**Project: I-64 Capacity Improvements – Segment III**

**Project No.: 0064-965-229**

**Contract ID: C00106689DB97**

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.

 5/1/2017  
\_\_\_\_\_  
Signature Date

\_\_\_\_\_  
President  
Title

Froehling & Robertson, Inc.  
\_\_\_\_\_  
Name of Firm

ATTACHMENT NO. 3.2.7(b)

**CERTIFICATION REGARDING DEBARMENT  
LOWER TIER COVERED TRANSACTIONS**

**Project: I-64 Capacity Improvements – Segment III**

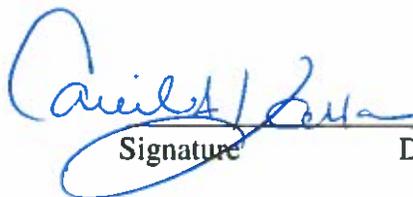
**Project No.: 0064-965-229**

**Contract ID: C00106689DB97**

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

GET Solutions, Inc. \_\_\_\_\_  
Name of Firm

ATTACHMENT NO. 3.2.7(b)

**CERTIFICATION REGARDING DEBARMENT  
LOWER TIER COVERED TRANSACTIONS**

**Project: I-64 Capacity Improvements – Segment III**  
**Project No.: 0064-965-229**  
**Contract ID: C00106689DB97**

- 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.

	May 1, 2017	Vice President
Signature	Date	Title

H&B Surveying and Mapping, LLC  
Name of Firm

ATTACHMENT NO. 3.2.7(b)

**CERTIFICATION REGARDING DEBARMENT  
LOWER TIER COVERED TRANSACTIONS**

**Project: I-64 Capacity Improvements – Segment III**

**Project No.: 0064-965-229**

**Contract ID: C00106689DB97**

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.

 4/25/17  
Signature Date

Regional Vice President  
Title

Johnson, Mirmiran & Thompson, Inc.  
Name of Firm

**ATTACHMENT NO. 3.2.7(b)**

**CERTIFICATION REGARDING DEBARMENT  
LOWER TIER COVERED TRANSACTIONS**

**Project: I-64 Capacity Improvements – Segment III**

**Project No.: 0064-965-229**

**Contract ID: C00106689DB97**

- 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

May 2, 2017

President

Title

Quinn Consulting Services, Inc.

Name of Firm

ATTACHMENT NO. 3.2.7(b)

**CERTIFICATION REGARDING DEBARMENT  
LOWER TIER COVERED TRANSACTIONS**

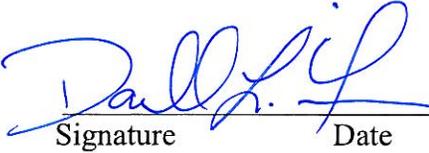
**Project: I-64 Capacity Improvements – Segment III**

**Project No.: 0064-965-229**

**Contract ID: C00106689DB97**

- 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

04/25/2017  
Date

Director of Design-Build Services/Principal  
Title

Rinker Design Associates, P.C.

Name of Firm

**ATTACHMENT NO. 3.2.7(b)**

**CERTIFICATION REGARDING DEBARMENT  
LOWER TIER COVERED TRANSACTIONS**

**Project: I-64 Capacity Improvements – Segment III**

**Project No.: 0064-965-229**

**Contract ID: C00106689DB97**

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

May<sup>1</sup> 2017  
Date

Senior Vice President  
Title

Whitman, Requardt & Associates, LLP  
Name of Firm

# APPENDIX 3.2.8

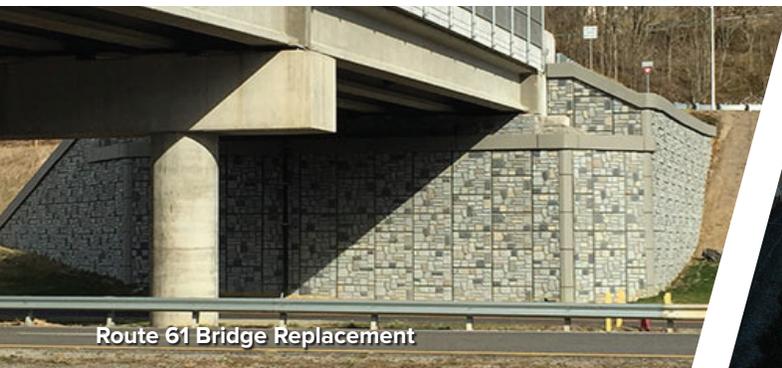
# VDOT PREQUALIFICATION EVIDENCE



I-95/I-695 Interchange



State Street Bridge Reconstruction



Route 61 Bridge Replacement



I-276 Interstate Widening and Reconstruction





COMMONWEALTH OF VIRGINIA



# CERTIFICATE OF QUALIFICATION

## ALLAN MYERS VA, INC.

Vendor Number: **G303**

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

### PREQUALIFIED

Your firm specializes in the noted Classification(s):

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

Issue Date: July 31, 2016

Suzanne FR Lucas, State Prequalification Officer

This Rating and Classification will Expire: July 31, 2017

Don E. Silies, Director of Contracts

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



COMMONWEALTH OF VIRGINIA



# CERTIFICATE OF QUALIFICATION

## WAGMAN HEAVY CIVIL, INC.

Vendor Number: **W002**

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

**PREQUALIFIED**

Your firm specializes in the noted Classification(s):

**MAJOR STRUCTURES; MINOR STRUCTURES; CLEARING AND GRUBBING;  
DEMOLITION OF STRUCTURES; EXCAVATING**

**Issue Date:** October 31, 2016

**This Rating and Classification will Expire:** October 31, 2017

Suzanne FR Lucas, State Prequalification Officer

Don E. Silles, Director of Contracts

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

---

**From:** Prequalification (VDOT) [<mailto:Prequalification@VDOT.Virginia.gov>]  
**Sent:** Tuesday, April 25, 2017 8:26 AM  
**To:** Aaron Myers <[Aaron.Myers@allanmyers.com](mailto:Aaron.Myers@allanmyers.com)>  
**Subject:** Your assigned Joint Venture # is JV085  
**Importance:** High

Allan Myers, VA, Inc.  
Wagman Heavy Civil, Inc.

Thank you for submitting the Joint Venture agreement to the Prequalification Office.  
We have processed the paperwork and the  
Joint Venture: Allan Myers Wagman is assigned the # **JV085**

Please feel free to contact me if there are any concerns.

Thank-you

*Suzanne Lucas*, CAPM

State Prequalification Supervisor  
Construction Division  
Virginia Department of Transportation  
1401 East Broad Street  
Richmond, Virginia 23219  
(804)-786-2941

Email: [Prequalification@VDOT.Virginia.gov](mailto:Prequalification@VDOT.Virginia.gov)

# APPENDIX 3.2.9

## EVIDENCE OF OBTAINING BONDING



I-95/I-695 Interchange



State Street Bridge Reconstruction



Route 61 Bridge Replacement



I-276 Interstate Widening and Reconstruction



CONTINENTAL CASUALTY COMPANY  
FIDELITY AND DEPOSIT COMPANY OF MARYLAND  
ZURICH AMERICAN INSURANCE COMPANY  
BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY

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

Re: A Design-Build Project  
RFQ No.: C00106689DB97  
I-64 Capacity Improvements-Segment III  
From: 1.15 Miles West of Route 199 (Lightfoot)  
To: 1.05 Miles West of Route 199 (Humelsine Parkway)  
York County, Virginia  
State Project No.: 0064-965-229, P-101, R-201, C-501, B-638, B-639, B-640, B-641,  
B-642, B-643, D-609, D-610, D-611  
Federal Project No. NHPP-064-3(498)  
Contract ID Number: C00106689DB97

To Whom It May Concern:

As sureties for Allan Myers Wagman A Joint Venture, Continental Casualty Company, with A.M. Best Financial Strength Rating of A and Financial Size Category XV, Fidelity and Deposit Company of Maryland, with A.M. Best Financial Strength Rating of A+ and Financial Size Category XV, Zurich American Insurance Company, with A.M. Best Financial Strength Rating of A+ and Financial Size Category XV, and Berkshire Hathaway Specialty Insurance Company, with A.M. Best Financial Strength Rating of A++ and Financial Size Category XV is capable of obtaining 100% Performance Bond and 100% Labor and Materials Payment Bond in the amount of the anticipated cost of construction (currently estimated amount of \$240,000,000.00), and said bonds will cover the Project and any warranty periods as provided for in the Contract Documents on behalf of the Contractor, in the event that such firm be the successful bidder and enter into a contract for this Project.

Signed, sealed and dated this 27<sup>th</sup> day of April, 2017.

Continental Casualty Company  
Fidelity and Deposit Company of Maryland  
Zurich American Insurance Company  
Berkshire Hathaway Specialty Insurance Company

By:   
Elizabeth P. Cervini, Attorney-In-Fact

POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT

Know All Men By These Presents, That Continental Casualty Company, an Illinois insurance company, National Fire Insurance Company of Hartford, an Illinois insurance company, and American Casualty Company of Reading, Pennsylvania, a Pennsylvania insurance company (herein called "the CNA Companies"), are duly organized and existing insurance companies having their principal offices in the City of Chicago, and State of Illinois, and that they do by virtue of the signatures and seals herein affixed hereby make, constitute and appoint

Harry C Rosenberg, David C Rosenberg, Matthew J Rosenberg, Sherri L Feeney, David A Johnson, Joyce M Houghton, Julia R Burnet, Michelle G Higgins, Denise M Bruno, Jonathan F Black, Elizabeth P Cervini, Individually

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

- In Unlimited Amounts -

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

This Power of Attorney is made and executed pursuant to and by authority of the By-Law and Resolutions, printed on the reverse hereof, duly adopted, as indicated, by the Boards of Directors of the insurance companies.

In Witness Whereof, the CNA Companies have caused these presents to be signed by their Vice President and their corporate seals to be hereto affixed on this 15th day of March, 2016.



Continental Casualty Company  
National Fire Insurance Company of Hartford  
American Casualty Company of Reading, Pennsylvania

*Paul T. Bruflat*  
Paul T. Bruflat Vice President

State of South Dakota, County of Minnehaha, ss:

On this 15th day of March, 2016, before me personally came Paul T. Bruflat to me known, who, being by me duly sworn, did depose and say: that he resides in the City of Sioux Falls, State of South Dakota; that he is a Vice President of Continental Casualty Company, an Illinois insurance company, National Fire Insurance Company of Hartford, an Illinois insurance company, and American Casualty Company of Reading, Pennsylvania, a Pennsylvania insurance company described in and which executed the above instrument; that he knows the seals of said insurance companies; that the seals affixed to the said instrument are such corporate seals; that they were so affixed pursuant to authority given by the Boards of Directors of said insurance companies and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said insurance companies.



My Commission Expires June 23, 2021

*J. Mohr*  
J. Mohr Notary Public

CERTIFICATE

I, D. Bult, Assistant Secretary of Continental Casualty Company, an Illinois insurance company, National Fire Insurance Company of Hartford, an Illinois insurance company, and American Casualty Company of Reading, Pennsylvania, a Pennsylvania insurance company do hereby certify that the Power of Attorney herein above set forth is still in force, and further certify that the By-Law and Resolution of the Board of Directors of the insurance companies printed on the reverse hereof is still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said insurance companies this 27th day of April, 2017.



Continental Casualty Company  
National Fire Insurance Company of Hartford  
American Casualty Company of Reading, Pennsylvania

*D. Bult*  
D. Bult Assistant Secretary

## Authorizing By-Laws and Resolutions

ADOPTED BY THE BOARD OF DIRECTORS OF CONTINENTAL CASUALTY COMPANY:

This Power of Attorney is made and executed pursuant to and by authority of the following resolution duly adopted by the Board of Directors of the Company at a meeting held on May 12, 1995:

"RESOLVED: That any Senior or Group Vice President may authorize an officer to sign specific documents, agreements and instruments on behalf of the Company provided that the name of such authorized officer and a description of the documents, agreements or instruments that such officer may sign will be provided in writing by the Senior or Group Vice President to the Secretary of the Company prior to such execution becoming effective."

This Power of Attorney is signed by Paul T. Bruflat, Vice President, who has been authorized pursuant to the above resolution to execute power of attorneys on behalf of Continental Casualty Company.

This Power of Attorney is signed and sealed by facsimile under and by the authority of the following Resolution adopted by the Board of Directors of the Company by unanimous written consent dated the 25<sup>th</sup> day of April, 2012:

"Whereas, the bylaws of the Company or specific resolution of the Board of Directors has authorized various officers (the "Authorized Officers") to execute various policies, bonds, undertakings and other obligatory instruments of like nature; and

Whereas, from time to time, the signature of the Authorized Officers, in addition to being provided in original, hard copy format, may be provided via facsimile or otherwise in an electronic format (collectively, "Electronic Signatures"); Now therefore be it resolved: that the Electronic Signature of any Authorized Officer shall be valid and binding on the Company."

ADOPTED BY THE BOARD OF DIRECTORS OF NATIONAL FIRE INSURANCE COMPANY OF HARTFORD:

This Power of Attorney is made and executed pursuant to and by authority of the following resolution duly adopted by the Board of Directors of the Company by unanimous written consent dated May 10, 1995:

"RESOLVED: That any Senior or Group Vice President may authorize an officer to sign specific documents, agreements and instruments on behalf of the Company provided that the name of such authorized officer and a description of the documents, agreements or instruments that such officer may sign will be provided in writing by the Senior or Group Vice President to the Secretary of the Company prior to such execution becoming effective."

This Power of Attorney is signed by Paul T. Bruflat, Vice President, who has been authorized pursuant to the above resolution to execute power of attorneys on behalf of National fire Insurance Company of Hartford.

This Power of Attorney is signed and sealed by facsimile under and by the authority of the following Resolution adopted by the Board of Directors of the Company by unanimous written consent dated the 25<sup>th</sup> day of April, 2012:

"Whereas, the bylaws of the Company or specific resolution of the Board of Directors has authorized various officers (the "Authorized Officers") to execute various policies, bonds, undertakings and other obligatory instruments of like nature; and

Whereas, from time to time, the signature of the Authorized Officers, in addition to being provided in original, hard copy format, may be provided via facsimile or otherwise in an electronic format (collectively, "Electronic Signatures"); Now therefore be it resolved: that the Electronic Signature of any Authorized Officer shall be valid and binding on the Company."

ADOPTED BY THE BOARD OF DIRECTORS OF AMERICAN CASUALTY COMPANY OF READING, PENNSYLVANIA:

This Power of Attorney is made and executed pursuant to and by authority of the following resolution duly adopted by the Board of Directors of the Company by unanimous written consent dated May 10, 1995:

"RESOLVED: That any Senior or Group Vice President may authorize an officer to sign specific documents, agreements and instruments on behalf of the Company provided that the name of such authorized officer and a description of the documents, agreements or instruments that such officer may sign will be provided in writing by the Senior or Group Vice President to the Secretary of the Company prior to such execution becoming effective."

This Power of Attorney is signed by Paul T. Bruflat, Vice President, who has been authorized pursuant to the above resolution to execute power of attorneys on behalf of American Casualty Company of Reading, Pennsylvania.

This Power of Attorney is signed and sealed by facsimile under and by the authority of the following Resolution adopted by the Board of Directors of the Company by unanimous written consent dated the 25<sup>th</sup> day of April, 2012:

"Whereas, the bylaws of the Company or specific resolution of the Board of Directors has authorized various officers (the "Authorized Officers") to execute various policies, bonds, undertakings and other obligatory instruments of like nature; and

Whereas, from time to time, the signature of the Authorized Officers, in addition to being provided in original, hard copy format, may be provided via facsimile or otherwise in an electronic format (collectively, "Electronic Signatures"); Now therefore be it resolved: that the Electronic Signature of any Authorized Officer shall be valid and binding on the Company."

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

KNOW ALL MEN BY THESE PRESENTS: That the ZURICH AMERICAN INSURANCE COMPANY, a corporation of the State of New York, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, a corporation of the State of Maryland, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND a corporation of the State of Maryland (herein collectively called the "Companies"), by Michael P. Bond, Vice President, in pursuance of authority granted by Article V, Section 8, of the By-Laws of said Companies, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, do hereby nominate, constitute, and appoint Harry C. Rosenberg, David C. ROSENBERG, Matthew J. ROSENBERG, Denise M. BRUNO, Julia R. BURNET, Michelle G. HIGGINS, Joyce M. HOUGHTON, Jonathan F. BLACK, Elizabeth P. CERVINI, David A. JOHNSON, Stephanie S. HELMIG and Sherri L. FEENEY, all of King of Prussia, Pennsylvania, each its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: any and all bonds and undertakings, and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Companies, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the ZURICH AMERICAN INSURANCE COMPANY at its office in New York, New York, the regularly elected officers of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at its office in Owings Mills, Maryland., and the regularly elected officers of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at its office in Owings Mills, Maryland., in their own proper persons.

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

IN WITNESS WHEREOF, the said Vice-President has hereunto subscribed his/her names and affixed the Corporate Seals of the said ZURICH AMERICAN INSURANCE COMPANY, COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND, this 10th day of April, A.D. 2017.

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



By: Michael P. Bond  
Vice President



By: Dawn E. Brown  
Secretary

State of Maryland  
County of Baltimore

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

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



Constance A. Dunn, Notary Public



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

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

**CERTIFICATE**

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

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

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

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

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

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seals of the said Companies, this 27th day of April, 20 17.



*Gerald F. Haley*

Gerald F. Haley, Vice President

**TO REPORT A CLAIM WITH REGARD TO A SURETY BOND, PLEASE SUBMIT A COMPLETE DESCRIPTION OF THE CLAIM INCLUDING THE PRINCIPAL ON THE BOND, THE BOND NUMBER, AND YOUR CONTACT INFORMATION TO:**

Zurich Surety Claims  
1299 Zurich Way  
Schaumburg, IL 60196-1056  
[www.zurichna.com/en/claims](http://www.zurichna.com/en/claims)



Power Of Attorney

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

Know all men by these presents, that BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY, a corporation existing under and by virtue of the laws of the State of Nebraska and having an office at 100 Federal Street, 20th Floor, Boston, Massachusetts 02110, NATIONAL INDEMNITY COMPANY, a corporation existing under and by virtue of the laws of the State of Nebraska and having an office at 3024 Harney Street, Omaha, Nebraska 68131, and NATIONAL LIABILITY & FIRE INSURANCE COMPANY, a corporation existing under and by virtue of the laws of the State of Connecticut and having an office at 100 First Stamford Place, Stamford, Connecticut 06902 (hereinafter collectively the "Companies"), pursuant to and by the authority granted as set forth herein, do hereby name, constitute and appoint: David A. Johnson, Stephanie S. Helmig, Jonathan F. Black, Elizabeth P. Cervini, Harry C. Rosenberg, Denise M. Bruno, Julia R. Burnet, Joyce M. Houghton, David C. Rosenberg, Matthew J. Rosenberg, 455 S. Gulph Road, Suite 400 of the city of King of Prussia, State of Pennsylvania, their true and lawful attorney(s)-in-fact to make, execute, seal, acknowledge, and deliver, for and on their behalf as surety and as their act and deed, any and all undertakings, bonds, or other such writings obligatory in the nature thereof, in pursuance of these presents, the execution of which shall be as binding upon the Companies as if it has been duly signed and executed by their regularly elected officers in their own proper persons. This authority for the Attorney-in-Fact shall be limited to the execution of the attached bond(s) or other such writings obligatory in the nature thereof.

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

BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY,

[Signature of David Fields]

By: David Fields, Executive Vice President



NATIONAL INDEMNITY COMPANY, NATIONAL LIABILITY & FIRE INSURANCE COMPANY,

[Signature of David Fields]

By: David Fields, Vice President



NOTARY

State of Massachusetts, County of Suffolk, ss:

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

[Notary Seal]



[Signature of Vicki S. Souther]

Notary Public

I, Brennan Neville, the undersigned, Assistant Secretary of BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY, NATIONAL INDEMNITY COMPANY and NATIONAL LIABILITY & FIRE INSURANCE COMPANY, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies which is in full force and effect and has not been revoked. IN TESTIMONY WHEREOF, I have hereunto affixed the seals of said companies this date of April 27, 2017.

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



*Bruce S. Neill*

Assistant Secretary

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

ARTICLE V.

CORPORATE ACTIONS

....

EXECUTION OF DOCUMENTS:

....

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

- (1) To appoint Attorneys-in-fact, and to authorize them to execute on behalf of the Company bonds and other undertakings, and
- (2) To remove at any time any such Attorney-in-fact and revoke the authority given him.

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

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

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

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

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

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

ARTICLE IV

Officers

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

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

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

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

## A.M. Best Rating Services

### Continental Casualty Company (2)

A.M. Best #: 002128 NAIC #: 20443 FEIN #: 362114545

**Domiciliary Address**  
 333 South Wabash Avenue  
 Chicago, IL 60604  
United States

Web: [www.cna.com](http://www.cna.com)  
 Phone: 312-822-5000

Assigned to insurance companies that have, in our opinion, an excellent ability to meet their ongoing insurance obligations.



View additional [news](#), [reports](#) and [products](#) for this company.

Based on A.M. Best's analysis, [050177 - Loews Corporation](#) is the AMB Ultimate Parent and identifies the topmost entity of the corporate structure. View a list of [operating insurance entities](#) in this structure.

#### Best's Credit Ratings

##### Financial Strength Rating [View Definition](#)

**Rating:** A (Excellent)  
**Financial Size Category:** XV (\$2 Billion or greater)  
**Outlook:** Stable  
**Action:** Affirmed  
**Effective Date:** February 23, 2016  
**Initial Rating Date:** June 30, 1922

##### Best's Credit Rating Analyst

**Rating Issued by:** A.M. Best Rating Services, Inc.  
**Senior Financial Analyst:** Gregory Dickerson  
**Director:** Jennifer Marshall, CPCU, ARM

##### Disclosure Information



[View A.M. Best's Rating Disclosure Form](#)

##### Long-Term Issuer Credit Rating [View Definition](#)

**Long-Term:** a  
**Outlook:** Stable  
**Action:** Affirmed  
**Effective Date:** February 23, 2016  
**Initial Rating Date:** June 21, 2005

[A.M. Best Affirms Ratings of CNA Financial Corporation and Its Subsidiaries; Assigns Rating to New Senior Notes](#)  
 February 23, 2016

u Denotes [Under Review Best's Rating](#)

#### Rating History

A.M. Best has provided ratings & analysis on this company since 1922.

##### Financial Strength Rating

Effective Date	Rating
2/23/2016	A
12/16/2014	A
12/18/2013	A
1/11/2013	A
4/5/2012	A
3/2/2011	A

##### Long-Term Issuer Credit Rating

Effective Date	Rating
2/23/2016	a
12/16/2014	a
12/18/2013	a
1/11/2013	a
4/5/2012	a
3/2/2011	a

## A.M. Best Rating Services

### Fidelity and Deposit Company of Maryland (?)

A.M. Best #: 000387 NAIC #: 39306 FEIN #: 133046577

**Administrative Office**

1299 Zurich Way  
Schaumburg, IL 60196-1056  
United States

[View Additional Address Information](#)

Web: [www.zurichna.com](http://www.zurichna.com)

Phone: 800-987-3373

Fax: 877-962-2567

Assigned to insurance companies that have, in our opinion, a superior ability to meet their ongoing insurance obligations.



View additional [news, reports and products](#) for this company.

Based on A.M. Best's analysis, [050457 - Zurich Insurance Group Ltd](#) is the AMB Ultimate Parent and identifies the topmost entity of the corporate structure. View a list of [operating insurance entities](#) in this structure.

#### Best's Credit Ratings

##### Financial Strength Rating [View Definition](#)

**Rating:** A+ (Superior)  
**Affiliation Code:** g (Group)  
**Financial Size Category:** XV (\$2 Billion or greater)  
**Outlook:** Negative  
**Action:** Affirmed  
**Effective Date:** December 01, 2016  
**Initial Rating Date:** June 30, 1922

##### Best's Credit Rating Analyst

**Rating Issued by:** A.M. Best Rating Services, Inc.  
**Senior Financial Analyst:** Darian Ryan  
**Senior Director:** Michael J. Lagomarsino, CFA, FRM

##### Disclosure Information



[View A.M. Best's Rating Disclosure Form](#)

##### Long-Term Issuer Credit Rating [View Definition](#)

**Long-Term:** aa-  
**Outlook:** Negative  
**Action:** Affirmed  
**Effective Date:** December 01, 2016  
**Initial Rating Date:** September 14, 2004

[A.M. Best Affirms Credit Ratings of Zurich Insurance Company Limited and Its Main Rated Affiliates](#)  
December 01, 2016

u Denotes [Under Review Best's Rating](#)

#### Rating History

A.M. Best has provided ratings & analysis on this company since 1922.

##### Financial Strength Rating

Effective Date	Rating
12/1/2016	A+
10/2/2015	A+
11/26/2014	A+
11/21/2013	A+
11/27/2012	A+

##### Long-Term Issuer Credit Rating

Effective Date	Rating
12/1/2016	aa-
10/2/2015	aa-
11/26/2014	aa-
11/21/2013	aa-
11/27/2012	aa-

#### AMB Credit Reports



**AMB Credit Report** - includes Best's Financial Strength Rating and rationale along with comprehensive analytical commentary, detailed business overview and key financial data.

Report Revision Date: 3/31/2017 (represents the latest significant change).

## A.M. Best Rating Services

### Zurich American Insurance Company (7)

A.M. Best #: 002563 NAIC #: 16535 FEIN #: 364233469

Administrative Office

[View Additional Address Information](#)

1299 Zurich Way

Schaumburg, IL 60196-1056

[United States](#)

Web: [www.zurichna.com](http://www.zurichna.com)

Phone: 800-987-3373

Fax: 877-962-2567

Assigned to insurance companies that have, in our opinion, a superior ability to meet their ongoing insurance obligations.



View additional [news, reports and products](#) for this company.

Based on A.M. Best's analysis, [050457 - Zurich Insurance Group Ltd](#) is the A.M.B. Ultimate Parent and identifies the topmost entity of the corporate structure. View a list of [operating insurance entities](#) in this structure.

#### Best's Credit Ratings

##### Financial Strength Rating [View Definition](#)

**Rating:** A+ (Superior)  
**Affiliation Code:** g (Group)  
**Financial Size Category:** XV (\$2 Billion or greater)  
**Outlook:** Negative  
**Action:** Affirmed  
**Effective Date:** December 01, 2016  
**Initial Rating Date:** June 30, 1922

##### Best's Credit Rating Analyst

**Rating Issued by:** A.M. Best Rating Services, Inc.  
**Senior Financial Analyst:** Darian Ryan  
**Senior Director:** Michael J. Lagomarsino, CFA, FRM

##### Disclosure Information



[View A.M. Best's Rating Disclosure Form](#)

##### Long-Term Issuer Credit Rating [View Definition](#)

**Long-Term:** aa-  
**Outlook:** Negative  
**Action:** Affirmed  
**Effective Date:** December 01, 2016  
**Initial Rating Date:** September 14, 2004



[A.M. Best Affirms Credit Ratings of Zurich Insurance Company Limited and Its Main Rated Affiliates](#)  
 December 01, 2016

u Denotes [Under Review Best's Rating](#)

#### Rating History

A.M. Best has provided ratings & analysis on this company since 1922.

##### Financial Strength Rating

Effective Date	Rating
12/1/2016	A+
10/2/2015	A+
11/26/2014	A+
11/21/2013	A+
11/27/2012	A+

##### Long-Term Issuer Credit Rating

Effective Date	Rating
12/1/2016	aa-
10/2/2015	aa-
11/26/2014	aa-
11/21/2013	aa-
11/27/2012	aa-

## A.M. Best Rating Services

## Berkshire Hathaway Specialty Insurance Company (2)

A.M. Best #: 000864 NAIC #: 22276 FEIN #: 630202590

## Domiciliary Address

1314 Douglas Street Suite 1400  
Omaha, NE 68102-1944

## United States

Web: [www.nationalindemnity.com](http://www.nationalindemnity.com)

Phone: 402-916-3000



Assigned to insurance companies that have, in our opinion, a superior ability to meet their ongoing insurance obligations.

View additional [news, reports and products](#) for this company.Based on A.M. Best's analysis, [058334 - Berkshire Hathaway Inc.](#) is the AMB Ultimate Parent and identifies the topmost entity of the corporate structure. View a list of [operating insurance entities](#) in this structure.

## Best's Credit Ratings

Financial Strength Rating [View Definition](#)

Rating:	A++ (Superior)
Affiliation Code:	g (Group)
Financial Size Category:	XV (\$2 Billion or greater)
Outlook:	Stable
Action:	Affirmed
Effective Date:	December 22, 2016
Initial Rating Date:	December 31, 1907

Long-Term Issuer Credit Rating [View Definition](#)

Long-Term:	aaa
Outlook:	Stable
Action:	Affirmed
Effective Date:	December 22, 2016
Initial Rating Date:	August 22, 2012

u Denotes [Under Review Best's Rating](#)

## Best's Credit Rating Analyst

Rating Issued by: A.M. Best Rating Services, Inc.  
Director: Greg Reisner  
Senior Director: Robert B. DeRose

## Disclosure Information

View A.M. Best's [Rating Disclosure Form](#)[A.M. Best Affirms Credit Ratings of Berkshire Hathaway Inc.'s Subsidiaries](#)  
December 22, 2016

## Rating History

A.M. Best has provided ratings &amp; analysis on this company since 1907.

## Financial Strength Rating

Effective Date	Rating
12/22/2016	A++
9/1/2015	A++
5/21/2014	A++
3/27/2014	A++
8/27/2013	A
8/22/2012	A

## Long-Term Issuer Credit Rating

Effective Date	Rating
12/22/2016	aaa
9/1/2015	aaa
5/21/2014	aaa
3/27/2014	aaa
8/27/2013	a
8/22/2012	a

## AMB Credit Reports



333 S. Wabash Avenue, Chicago, IL 60604

April 14, 2017

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

Re: A Design-Build Project  
RFQ No.: C00106689DB97  
I-64 Capacity Improvements- Segment III  
From: 1.15 Miles West of Route 199 (Lightfoot)  
To: 1.05 West of Route 199 (Humelsine Parkway)  
York County, Virginia  
State Project No.: 0064-965-229,P-101, R-201, C-501, B-638, B-639, B-640, B-641, B-642, B-643, D-609, D-610, D-611  
Federal Project No: NHPP-064-3(498)  
Contract ID Number: C00106689DB97

Dear Sirs:

As surety for Wagman Heavy Civil, Inc., Western Surety Company , with A.M. Best Financial Strength Rating "A" and Financial Size Category "XV", is capable of obtaining 100% Performance and 100% Labor and Materials Payment Bonds in the amount of \$240,000,000 (estimated contract value) and said bonds will cover the Project and any warranty periods as provided for in the Contract Documents on behalf of the Contractor, in the event that such firm be the successful bidder and enter into a contract for this Project.

Sincerely,

Continental Casualty Company

By:   
\_\_\_\_\_  
Patricia C. Robinson  
Attorney-in-Fact

**POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT**

**Know All Men By These Presents**, That Continental Casualty Company, an Illinois insurance company, National Fire Insurance Company of Hartford, an Illinois insurance company, and American Casualty Company of Reading, Pennsylvania, a Pennsylvania insurance company (herein called "the CNA Companies"), are duly organized and existing insurance companies having their principal offices in the City of Chicago, and State of Illinois, and that they do by virtue of the signatures and seals herein affixed hereby make, constitute and appoint

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

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

**- In Unlimited Amounts -**

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

This Power of Attorney is made and executed pursuant to and by authority of the By-Law and Resolutions, printed on the reverse hereof, duly adopted, as indicated, by the Boards of Directors of the insurance companies.

**In Witness Whereof**, the CNA Companies have caused these presents to be signed by their Vice President and their corporate seals to be hereto affixed on this 6th day of October, 2015.



Continental Casualty Company  
National Fire Insurance Company of Hartford  
American Casualty Company of Reading, Pennsylvania

*Paul T. Bruflat*  
\_\_\_\_\_  
Paul T. Bruflat Vice President

State of South Dakota, County of Minnehaha, ss:

On this 6th day of October, 2015, before me personally came Paul T. Bruflat to me known, who, being by me duly sworn, did depose and say: that he resides in the City of Sioux Falls, State of South Dakota; that he is a Vice President of Continental Casualty Company, an Illinois insurance company, National Fire Insurance Company of Hartford, an Illinois insurance company, and American Casualty Company of Reading, Pennsylvania, a Pennsylvania insurance company described in and which executed the above instrument; that he knows the seals of said insurance companies; that the seals affixed to the said instrument are such corporate seals; that they were so affixed pursuant to authority given by the Boards of Directors of said insurance companies and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said insurance companies.



My Commission Expires February 12, 2021

*S. Eich*  
\_\_\_\_\_  
S. Eich Notary Public

**CERTIFICATE**

I, D. Bult, Assistant Secretary of Continental Casualty Company, an Illinois insurance company, National Fire Insurance Company of Hartford, an Illinois insurance company, and American Casualty Company of Reading, Pennsylvania, a Pennsylvania insurance company do hereby certify that the Power of Attorney herein above set forth is still in force, and further certify that the By-Law and Resolution of the Board of Directors of the insurance companies printed on the reverse hereof is still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said insurance companies this 14th day of April, 2014.



Continental Casualty Company  
National Fire Insurance Company of Hartford  
American Casualty Company of Reading, Pennsylvania

*D. Bult*  
\_\_\_\_\_  
D. Bult Assistant Secretary

## Authorizing By-Laws and Resolutions

ADOPTED BY THE BOARD OF DIRECTORS OF CONTINENTAL CASUALTY COMPANY:

This Power of Attorney is made and executed pursuant to and by authority of the following resolution duly adopted by the Board of Directors of the Company at a meeting held on May 12, 1995:

“RESOLVED: That any Senior or Group Vice President may authorize an officer to sign specific documents, agreements and instruments on behalf of the Company provided that the name of such authorized officer and a description of the documents, agreements or instruments that such officer may sign will be provided in writing by the Senior or Group Vice President to the Secretary of the Company prior to such execution becoming effective.”

This Power of Attorney is signed by Paul T. Bruflat, Vice President, who has been authorized pursuant to the above resolution to execute power of attorneys on behalf of Continental Casualty Company.

This Power of Attorney is signed and sealed by facsimile under and by the authority of the following Resolution adopted by the Board of Directors of the Company by unanimous written consent dated the 25<sup>th</sup> day of April, 2012:

“Whereas, the bylaws of the Company or specific resolution of the Board of Directors has authorized various officers (the “Authorized Officers”) to execute various policies, bonds, undertakings and other obligatory instruments of like nature; and

Whereas, from time to time, the signature of the Authorized Officers, in addition to being provided in original, hard copy format, may be provided via facsimile or otherwise in an electronic format (collectively, “Electronic Signatures”); Now therefore be it resolved: that the Electronic Signature of any Authorized Officer shall be valid and binding on the Company.”

ADOPTED BY THE BOARD OF DIRECTORS OF NATIONAL FIRE INSURANCE COMPANY OF HARTFORD:

This Power of Attorney is made and executed pursuant to and by authority of the following resolution duly adopted by the Board of Directors of the Company by unanimous written consent dated May 10, 1995:

“RESOLVED: That any Senior or Group Vice President may authorize an officer to sign specific documents, agreements and instruments on behalf of the Company provided that the name of such authorized officer and a description of the documents, agreements or instruments that such officer may sign will be provided in writing by the Senior or Group Vice President to the Secretary of the Company prior to such execution becoming effective.”

This Power of Attorney is signed by Paul T. Bruflat, Vice President, who has been authorized pursuant to the above resolution to execute power of attorneys on behalf of National fire Insurance Company of Hartford.

This Power of Attorney is signed and sealed by facsimile under and by the authority of the following Resolution adopted by the Board of Directors of the Company by unanimous written consent dated the 25<sup>th</sup> day of April, 2012:

“Whereas, the bylaws of the Company or specific resolution of the Board of Directors has authorized various officers (the “Authorized Officers”) to execute various policies, bonds, undertakings and other obligatory instruments of like nature; and

Whereas, from time to time, the signature of the Authorized Officers, in addition to being provided in original, hard copy format, may be provided via facsimile or otherwise in an electronic format (collectively, “Electronic Signatures”); Now therefore be it resolved: that the Electronic Signature of any Authorized Officer shall be valid and binding on the Company.”

ADOPTED BY THE BOARD OF DIRECTORS OF AMERICAN CASUALTY COMPANY OF READING, PENNSYLVANIA:

This Power of Attorney is made and executed pursuant to and by authority of the following resolution duly adopted by the Board of Directors of the Company by unanimous written consent dated May 10, 1995:

“RESOLVED: That any Senior or Group Vice President may authorize an officer to sign specific documents, agreements and instruments on behalf of the Company provided that the name of such authorized officer and a description of the documents, agreements or instruments that such officer may sign will be provided in writing by the Senior or Group Vice President to the Secretary of the Company prior to such execution becoming effective.”

This Power of Attorney is signed by Paul T. Bruflat, Vice President, who has been authorized pursuant to the above resolution to execute power of attorneys on behalf of American Casualty Company of Reading, Pennsylvania.

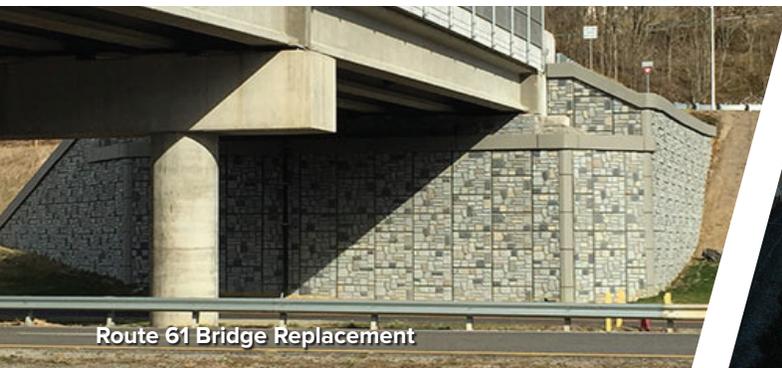
This Power of Attorney is signed and sealed by facsimile under and by the authority of the following Resolution adopted by the Board of Directors of the Company by unanimous written consent dated the 25<sup>th</sup> day of April, 2012:

“Whereas, the bylaws of the Company or specific resolution of the Board of Directors has authorized various officers (the “Authorized Officers”) to execute various policies, bonds, undertakings and other obligatory instruments of like nature; and

Whereas, from time to time, the signature of the Authorized Officers, in addition to being provided in original, hard copy format, may be provided via facsimile or otherwise in an electronic format (collectively, “Electronic Signatures”); Now therefore be it resolved: that the Electronic Signature of any Authorized Officer shall be valid and binding on the Company.”

# APPENDIX 3.2.10

# SCC AND DPOR REGISTRATION DOCUMENTATION



**ATTACHMENT 3.2.10**

**State Project No. 0064-965-229, Contract ID: C00106689DB97**

**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
Allan Myers VA, Inc.	0113780-1	Corporation	Active	301 Concourse Blvd., Suite 300 Glen Allen, VA 23059	Class A Contractor	2701009872	12-31-2018
Froehling & Robertson, Inc (F&R)	0027211-2	Corporation	Active	3015 Dumbarton Rd Richmond, VA 23228	Business Entity, ENG	0407000098	12-31-2017
Geotechnical Environmental and Testing Solutions, Inc. (GET)	0541847-0	Corporation	Active	204-B Grayson Rd. Virginia Beach, VA 23462	Business Entity, ENG	0407004018	12-31-2017
H & B Surveying and Mapping, LLC	S290560-4	Limited Liability Corporation	Active	1592 Penniman Rd, Suite E Williamsburg, VA 23185	Business Entity Branch Office, ENG	0411000366	02-28-2018
Johnson, Mirmiran & Thompson, Inc. (JMT)	F149901-3	Foreign Corporation	Active	612 Hull St., Suite 101B Richmond, VA 23224	Business Entity	0407005432	12-31-2017
				9201 Arboretum Pkwy., Suite 310 Richmond, VA 23236	Business Entity Branch Office, ENG, LS	0411000029	02-28-2018
				13921 Park Center Rd., Suite 140 Herndon, VA 20171	Business Entity Branch Office, ENG	0411000441	02-28-2018

**ATTACHMENT 3.2.10**

**State Project No. 0064-965-229, Contract ID: C00106689DB97**

**SCC and DPOR Information**

Quinn Consulting Services Incorporated	0492551-7	Corporation	Active	14160 Newbrook Dr., Suite 220 Chantilly, VA 20151	Business Entity, ENG	0407003733	12-31-2017
Rinker Design Associates, P.C.	0227062-7	Corporation	Active	9385 Discovery Blvd., Suite 200 Manassas, VA 20109	Professional Corporation, ENG, LS	0405000502	12-31-2017
				4301 Dominion Blvd., Ste 100 Glen Allen, VA 23060	Professional Corporation Branch Office, ENG	0410000220	02-28-2018
Wagman Heavy Civil, Inc.	F019898-8	Foreign Corporation	Active	3290 North Susquehanna Trail York, PA 17406	Class A Contractor	2701015887	01-31-2019
				801 So. Caroline St. Baltimore, MD 21231	Business Entity, ENG, LS, LA, ARC	0407001676	12-31-2017
Whitman, Requardt & Associates, LLP (WRA)	K000382-4	Limited Liability Partnership	Active	9300 Stony Point Pkwy, Suite 220 Richmond, VA 23235	Business Entity Branch Office, ENG	0411000133	02-28-2018
				1700 Kraft Dr. Suite 1200 Blacksburg, VA 24060	Business Entity Branch Office, ENG	0411000608	02-28-2018
				5701 Cleveland St., Suite 620 Virginia Beach, VA 23462	Business Entity Branch Office, ENG	0411000908	02-28-2018
				100 5 <sup>th</sup> St., Suite L2000 Bristol, TN 37620	Business Entity Branch Office, ENG	0411001228	02-28-2018

**ATTACHMENT 3.2.10**

**State Project No. 0064-965-229, Contract ID: C00106689DB97**

**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
Allan Myers VA, Inc.	Thomas M. Heil	Richmond, VA	318 E Mason Ave Alexandria, VA 22301	Professional Engineer	0402044111	01-31-2019
Quinn Consulting Services Incorporated	Anthony J. Kondysar	Chantilly, VA	3905 St Mary's Cir. Williamsburg, VA 23185	Professional Engineer	0402021246	07-31-2018
Whitman, Requardt & Associates, LLP (WRA)	John Patrick Maddox	Richmond, VA	2825 Wilbrook Dr. Richmond, VA 23233	Professional Engineer	0402026613	01-31-2018

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04/27/17

CISM0180

CORPORATE DATA INQUIRY

15:52:05

CORP ID: 0113780 - 1 STATUS: 00 ACTIVE STATUS DATE: 11/19/13  
 CORP NAME: Allan Myers 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 ROAD, SUITE 285 AR RTN MAIL:

CITY: GLEN ALLEN STATE : VA ZIP: 23060-0000  
 R/A STATUS: 5 B.E. AUTH IN VI EFF. DATE: 10/04/13 LOC : 143  
 ACCEPTED AR#: 216 15 6422 DATE: 10/21/16 HENRICO COUNTY  
 CURRENT AR#: 216 15 6422 DATE: 10/21/16 STATUS: A ASSESSMENT INDICATOR: 0  
 YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES  
 16 670.00 100,000

# COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation  
9960 Mayland Drive, Suite 400, Richmond, VA 23233  
Telephone: (804) 367-8500

EXPIRES ON  
12-31-2018

NUMBER  
2701009872

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



ALLAN MYERS VA INC  
301 CONCOURSE BLVD  
SUITE 300  
GLEN ALLEN, VA 23059



*James W. DeBorja*  
DPOR Director

Status can be verified at <http://www.dpor.virginia.gov>

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

**DPOR** COMMONWEALTH of VIRGINIA  
Department of Professional and Occupational Regulation  
CLASS A BOARD FOR CONTRACTORS  
CONTRACTOR

\*CLASSIFICATIONS\* H/H  
NUMBER: 2701009872 EXPIRES: 12-31-2018

ALLAN MYERS VA INC  
301 CONCOURSE BLVD  
SUITE 300  
GLEN ALLEN, VA 23059



DPOR-LIC (05/2015)

(DETACH HERE)

Status can be verified at <http://www.dpor.virginia.gov>

DPOR-PC (05/2015)

Alert to corporations regarding unsolicited mailings from VIRGINIA COUNCIL CORPORATIONS is available from the Bulletin Archive link of the Clerk's Office w

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CISM0180

CORPORATE DATA INQUIRY

04/28/17

14:51:57

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: 23219-0000

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

ACCEPTED AR#: 216 14 0753 DATE: 09/15/16 RICHMOND CITY

CURRENT AR#: 216 14 0753 DATE: 09/15/16 STATUS: A ASSESSMENT INDICATOR: 0

YEAR	FEES	PENALTY	INTEREST	TAXES	BALANCE	TOTAL SHARES
16	1,700.00					1,100,000

**COMMONWEALTH of VIRGINIA**

Department of Professional and Occupational Regulation  
9960 Mayland Drive, Suite 400, Richmond, VA 23233

Telephone: (804) 367-8500

EXPIRES ON  
12-31-2017

NUMBER  
0407000098

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

PROFESSIONS: ENG



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



*James W. DeBorja*  
By W. DeBorja, Director

Status can be verified at <http://www.dpor.virginia.gov>

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)



**BOARD FOR APELSCIDLA  
BUSINESS ENTITY REGISTRATION  
NUMBER: 0407000098 EXPIRES: 12-31-2017  
PROFESSIONS: ENG  
FROEHLING & ROBERTSON, INC  
3015 DUMBARTON ROAD  
RICHMOND, VA 23228**



Status can be verified at <http://www.dpor.virginia.gov>

DPOR-LIC (05/2015)  
(DETACH HERE)

DPOR-PC (05/2015)

Alert to corporations regarding unsolicited mailings from VIRGINIA COUNCIL CORPORATIONS is available from the Bulletin Archive link of the Clerk's Office w

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CISM0180

CORPORATE DATA INQUIRY

04/27/17

15:54:20

CORP ID: 0541847 - 0 STATUS: 00 ACTIVE STATUS DATE: 08/04/04  
 CORP NAME: Geotechnical Environmental and Testing Solutions, Inc.

DATE OF CERTIFICATE: 06/16/2000 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: 50.00 MON NO: MON STATUS: MONITOR DTE:  
 R/A NAME: TERENCE MURPHY

STREET: KAUFMAN & CANOLES PC AR RTN MAIL:  
 150 W MAIN ST STE 2100

CITY: NORFOLK STATE : VA ZIP: 23510-1609

R/A STATUS: 4 ATTORNEY EFF. DATE: 07/17/02 LOC : 212

ACCEPTED AR#: 216 09 5472 DATE: 06/09/16 NORFOLK CITY

CURRENT AR#: 216 09 5472 DATE: 06/09/16 STATUS: A ASSESSMENT INDICATOR: 0

YEAR	FEES	PENALTY	INTEREST	TAXES	BALANCE	TOTAL SHARES
17	100.00				100.00	5,000

(Screen Id.:/Corp\_Data\_Inquiry)

**COMMONWEALTH of VIRGINIA**

Department of Professional and Occupational Regulation  
9960 Mayland Drive, Suite 400, Richmond, VA 23233  
Telephone: (804) 367-8500

EXPIRES ON  
12-31-2017

NUMBER  
0407004018

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



GEOTECHNICAL ENVIRONMENTAL & TESTING  
SOLUTIONS INC  
204-B GRAYSON ROAD  
VIRGINIA BEACH, VA 23462

*James W. DeBorja*  
Director

Status can be verified at <http://www.dpor.virginia.gov>

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

**DPOR** COMMONWEALTH of VIRGINIA  
Department of Professional and Occupational Regulation

BOARD FOR APPLICABLE  
BUSINESS ENTITY REGISTRATION  
NUMBER: 0407004018 EXPIRES: 12-31-2017  
PROFESSIONS: ENG  
GEOTECHNICAL ENVIRONMENTAL & TESTING SOLUTIONS INC  
204-B GRAYSON ROAD  
VIRGINIA BEACH, VA 23462



Status can be verified at <http://www.dpor.virginia.gov>

DPOR-PC (05/2015)

DPOR-LIC (05/2015)  
(DETACH HERE)

# COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation  
9960 Mayland Drive, Suite 400, Richmond, VA 23233  
Telephone: (804) 367-8500

EXPIRES ON

02-28-2018

NUMBER

0411000366

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



GEOTECHNICAL ENVIRONMENTAL TESTING SOLUTIONS  
INC  
1592 PENNIMAN RD STE E  
WILLIAMSBURG, VA 23185

*James W. DeBorja*  
James W. DeBorja Director

Status can be verified at <http://www.dpoc.virginia.gov>

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)



BOARD FOR APELSCIDLA  
BUSINESS ENTITY BRANCH OFFICE REGISTRATION  
NUMBER: 0411000366 EXPIRES: 02-28-2018  
PROFESSIONS: ENG  
GEOTECHNICAL ENVIRONMENTAL TESTING SOLUTIONS INC  
1592 PENNIMAN RD STE E  
WILLIAMSBURG, VA 23185



Status can be verified at <http://www.dpoc.virginia.gov>

DPOR-LIC (05/2015)  
(DETACH HERE)

DPOR-PC (05/2015)

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04/27/17

LLCM3220

LLC DATA INQUIRY

16:22:02

LLC ID: S290560 - 4 STATUS: 00 ACTIVE STATUS DATE: 04/27/09

LLC NAME: H & B Surveying and Mapping, LLC

DATE OF FILING: 04/27/2009 PERIOD OF DURATION: INDUSTRY CODE: 00

STATE OF FILING: VA VIRGINIA MERGER INDICATOR:

CONVERSION/DOMESTICATION INDICATOR:

P R I N C I P A L O F F I C E A D D R E S S

STREET: 612 HULL STREET STE 101B

CITY: RICHMOND STATE: VA ZIP: 23224-0000

R E G I S T E R E D A G E N T I N F O R M A T I O N

R/A NAME: TIMOTHY H GUARE

STREET: TIMOTHY H GUARE PLC  
6802 PARAGON PL STE 100

RTN MAIL:

CITY: HENRICO STATE: VA ZIP: 23230-0000

R/A STATUS: 4 MEMBER OF VSB EFF DATE: 07/02/09 LOC: 143 HENRICO COUNTY

YEAR	FEES	PENALTY	INTEREST	BALANCE
17	50.00			

(Screen Id:/LLC\_Data\_Inquiry)

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation  
9960 Mayland Drive, Suite 400, Richmond, VA 23233

Telephone: (804) 367-8500

EXPIRES ON  
12-31-2017

NUMBER  
0407005432

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

PROFESSIONALS



H & B SURVEYING & MAPPING LLC  
612 HULL ST  
SUITE 101B  
RICHMOND, VA 23224



*James W. DeBorja*  
JAMES W. DEBORJA, PRESIDENT

Status can be verified at <http://www.dpor.virginia.gov>

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DPOR-LIC (05/2015)

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04/27/17

CISM0180

CORPORATE DATA INQUIRY

15:55:05

CORP ID: F149901 - 3 STATUS: 00 ACTIVE STATUS DATE: 10/17/06  
 CORP NAME: Johnson, Mirmiran & Thompson, Inc.

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

STREET: 9201 ARBORETUM PKY STE 140 AR RTN MAIL:

CITY: RICHMOND STATE : VA ZIP: 23236-0000  
 R/A STATUS: 2 OFFICER EFF. DATE: 09/06/07 LOC : 120  
 ACCEPTED AR#: 216 54 9806 DATE: 03/30/17 CHESTERFIELD CO  
 CURRENT AR#: 216 54 9806 DATE: 03/30/17 STATUS: A ASSESSMENT INDICATOR: 0  
 YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES  
 16 100.00 1,000

(Screen Id:/Corp\_Data\_Inquiry)

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation  
9960 Mayland Drive, Suite 400, Richmond, VA 23233  
Telephone: (804) 367-8500

EXPIRES ON  
02-28-2018

NUMBER  
0411000029

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

PROFESSIONS: ENG, LS



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

*James W. P. B...*  
James W. P. B...  
Executive Director

Status can be verified at <http://www.dpor.virginia.gov>

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)



COMMONWEALTH of VIRGINIA  
Department of Professional and Occupational Regulation

BOARD FOR APELSCIDLA  
BUSINESS ENTITY BRANCH OFFICE REGISTRATION  
NUMBER: 0411000029 EXPIRES: 02-28-2018  
PROFESSIONS: ENG, LS  
JOHNSON, MIRMIRAN & THOMPSON, INC.  
9201 ARBORETUM PKWY  
SUITE 310  
RICHMOND, VA 23236



Status can be verified at <http://www.dpor.virginia.gov>

DPOR-LIC (05/2015)  
(DETACH HERE)

DPOR-PC (05/2015)

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation  
9960 Mayland Drive, Suite 400, Richmond, VA 23233  
Telephone: (804) 367-8500

EXPIRES ON  
02-28-2018

NUMBER  
0411000441

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

PROFESSIONS: ENG



JOHNSON MIRMIRAN & THOMPSON INC  
13921 PARK CENTER RD  
SUITE 140  
HERNDON, VA 20171



*James W. DeBorja*  
James W. DeBorja, Director

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COMMONWEALTH of VIRGINIA  
Department of Professional and Occupational Regulation  
BOARD FOR APELSCIDLA  
BUSINESS ENTITY BRANCH OFFICE REGISTRATION  
NUMBER: 0411000441 EXPIRES: 02-28-2018  
PROFESSIONS: ENG  
JOHNSON MIRMIRAN & THOMPSON INC  
13921 PARK CENTER RD  
SUITE 140  
HERNDON, VA 20171



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DPOR-LIC (05/2015)  
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DPOR-PC (05/2015)

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04/27/17  
15:53:52

CISM0180 CORPORATE DATA INQUIRY

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

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

STREET: 2208 S KNOLL ST AR RTN MAIL:

CITY: ARLINGTON STATE : VA ZIP: 22202-2134  
 R/A STATUS: 4 ATTORNEY EFF. DATE: 10/24/97 LOC : 106  
 ACCEPTED AR#: 216 13 3280 DATE: 08/29/16 ARLINGTON COUNT  
 CURRENT AR#: 216 13 3280 DATE: 08/29/16 STATUS: A ASSESSMENT INDICATOR: 0  
 YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES  
 16 100.00 5,000

(Screen Id:/Corp\_Data\_Inquiry)

**COMMONWEALTH of VIRGINIA**

Department of Professional and Occupational Regulation  
9960 Mayland Drive, Suite 400, Richmond, VA 23233  
Telephone: (804) 367-8500

**EXPIRES ON  
12-31-2017**

**NUMBER  
0407003733**

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

**PROFESSIONS: ENG**



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



*James W. DeBore*  
James W. DeBore, President

Status can be verified at <http://www.dpor.virginia.gov>

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)



**COMMONWEALTH of VIRGINIA**  
Department of Professional and Occupational Regulation

**BOARD FOR APELSCIDLA  
BUSINESS ENTITY REGISTRATION  
NUMBER: 0407003733 EXPIRES: 12-31-2017  
PROFESSIONS: ENG  
QUINN CONSULTING SERVICES INC  
14160 NEWBROOK DR STE 220  
CHANTILLY, VA 20151**



(FOLD)

DPOR-LIC (05/2015)  
(DETACH HERE)

DPOR-PC (05/2015)

Status can be verified at <http://www.dpor.virginia.gov>

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CISM0180

CORPORATE DATA INQUIRY

04/27/17

15:53:15

CORP ID: 0227062 - 7 STATUS: 00 ACTIVE STATUS DATE: 04/22/91  
 CORP NAME: Rinker Design Associates, P.C.

DATE OF CERTIFICATE: 02/24/1982 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: MON NO: MON STATUS: MONITOR DTE:  
 R/A NAME: JOHN S WISIACKAS

STREET: ODIN FELDMAN & PITTLEMAN PC AR RTN MAIL:  
 1775 WIEHLE AVENUE STE 400

CITY: RESTON STATE : VA ZIP: 20190-0000

R/A STATUS: 4 ATTORNEY EFF. DATE: 08/27/12 LOC : 129

ACCEPTED AR#: 217 02 2082 DATE: 01/17/17 FAIRFAX COUNTY

CURRENT AR#: 217 02 2082 DATE: 01/17/17 STATUS: A ASSESSMENT INDICATOR: 0

YEAR	FEES	PENALTY	INTEREST	TAXES	BALANCE	TOTAL SHARES
17	190.00					20,000

(Screen Id:/Corp\_Data\_Inquiry)

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation  
9900 Mayland Drive, Suite 400, Richmond, VA 23233  
Telephone: (804) 367-8500

EXPIRES ON  
12-31-2017

NUMBER  
0405000502

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

PROFESSIONS: ENG, LS



RINKER DESIGN ASSOCIATES PC  
9385 DISCOVERY BOULEVARD, STE 200  
MANASSAS, VA 20109

*James W. DeBoni*  
James W. DeBoni, Director

Status can be verified at <http://www.dpor.virginia.gov>

EXPIRES ON  
02-28-2018

NUMBER  
0410000220

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

PROFESSIONAL CORPORATION BRANCH OFFICE REGISTRATION

PROFESSIONS-ENG



RINKER DESIGN ASSOCIATES PC  
4301 DOMINION BOULEVARD, SUITE 100  
GLEN ALLEN, VA 23060

*James W. DeBorja*  
James W. DeBorja  
Director

Alert to corporations regarding unsolicited mailings from VIRGINIA COUNCIL CORPORATIONS is available from the Bulletin Archive link of the Clerk's Office w

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04/27/17  
15:56:10

CISM0180 CORPORATE DATA INQUIRY

CORP ID: F019898 - 8 STATUS: 00 ACTIVE STATUS DATE: 10/08/10  
CORP NAME: Wagman Heavy Civil, Inc.

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

STREET: BANK OF AMERICA CENTER AR RTN MAIL:  
16TH FLOOR, 1111 EAST MAIN STREET

CITY: RICHMOND STATE : VA ZIP: 23219-0000

R/A STATUS: 5 B.E. AUTH IN VI EFF. DATE: 09/11/12 LOC : 216

ACCEPTED AR#: 216 18 8490 DATE: 02/21/17 RICHMOND CITY

CURRENT AR#: 216 18 8490 DATE: 02/21/17 STATUS: A ASSESSMENT INDICATOR: 0

YEAR	FEES	PENALTY	INTEREST	TAXES	BALANCE	TOTAL SHARES
16	1,700.00					4,000,000

(Screen Id:/Corp\_Data\_Inquiry)

**COMMONWEALTH of VIRGINIA**

Department of Professional and Occupational Regulation  
9960 Mayland Drive, Suite 400, Richmond, VA 23233  
Telephone: (804) 367-8500

EXPIRES ON  
**01-31-2019**

NUMBER  
**2701015887**



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

**WAGMAN HEAVY CIVIL INC  
3290 NORTH SUSQUEHANNA TRAIL  
YORK, PA 17406**



*James W. DeBorja*  
James W. DeBorja  
Director

Status can be verified at <http://www.dpor.virginia.gov>

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**COMMONWEALTH of VIRGINIA**  
Department of Professional and Occupational Regulation

**CLASS A BOARD FOR CONTRACTORS  
CONTRACTOR**

**\*CLASSIFICATIONS\* H/H  
NUMBER: 2701015887 EXPIRES: 01-31-2019**

**WAGMAN HEAVY CIVIL INC  
3290 NORTH SUSQUEHANNA TRAIL  
YORK, PA 17406**



DPOR-LIC (05/2015)  
(DETACH HERE)

(FOLD)

COMMONWEALTH OF VIRGINIA  
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 foreign registered limited liability partnership was filed in the Clerk's Office of the Commission by Whitman, Requardt & Associates, LLP, a Maryland 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:  
July 7, 2016*



*Joel H. Peck*  
Joel H. Peck, Clerk of the Commission

# 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*



COMMONWEALTH OF VIRGINIA  
STATE CORPORATION COMMISSION

Office of the Clerk

June 14, 2016

CT CORPORATION SYSTEM  
4701 COX ROAD, SUITE 285  
GLEN ALLEN, VA 23060

RECEIPT

RE: WHITMAN, REQUARDT & ASSOCIATES, LLP

ID: K000382 - 4

DCN: 16-06-14-0536

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 June 14, 2016.

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  
CISCCJ

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation  
9900 Naylor Drive, Suite 400, Richmond, VA 23233  
Telephone: (804) 367-8500

EXPIRES ON

12-31-2017

NUMBER

0407001676

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

PROFESSIONS: ENG, LS, LA, ARC

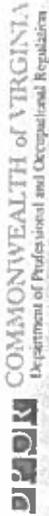


WHITMAN, REQUARDT AND ASSOCIATES LLP  
801 SOUTH CAROLINE STREET  
BALTIMORE, MD 21231

*James W. DeB...*  
Director

Status can be verified at <http://www.dpoor.virginia.gov>

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COMMONWEALTH of VIRGINIA  
Department of Professional and Occupational Regulation

BOARD FOR APELSCIDLA

BUSINESS ENTITY REGISTRATION

NUMBER: 0407001676 EXPIRES: 12-31-2017

PROFESSIONS: ENG, LS, LA, ARC

WHITMAN, REQUARDT AND ASSOCIATES LLP

801 SOUTH CAROLINE STREET

BALTIMORE, MD 21231



Status can be verified at <http://www.dpoor.virginia.gov>

DPOR-LIC (05/2015)  
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DPOR-PC (05/2015)

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation  
9960 Mayland Drive, Suite 400, Richmond, VA 23233  
Telephone: (804) 367-8500

EXPIRES ON  
02-28-2018

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 STE 220  
RICHMOND, VA 23235



*James W. DeB...*  
James W. DeB...

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COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation

BOARD FOR APELSCIDLA  
BUSINESS ENTITY BRANCH OFFICE REGISTRATION  
NUMBER: 0411000133 EXPIRES: 02-28-2018  
PROFESSIONS: ENG  
WHITMAN REQUARDT AND ASSOCIATES  
9030 STONY POINT PKWY STE 220  
RICHMOND, VA 23235



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DPOR-PC (05/2015)

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation  
9960 Mayland Drive, Suite 400, Richmond, VA 23233  
Telephone: (804) 367-8500

EXPIRES ON  
02-28-2018

NUMBER  
0411000608

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



WHITMAN REQUARDT & ASSOCIATES LLP  
1700 KRAFT DRIVE  
SUITE 1200  
BLACKSBURG, VA 24060

*James W. DeB...*  
James W. DeB...

Status can be verified at <http://www.dpor.virginia.gov>

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COMMONWEALTH of VIRGINIA  
Department of Professional and Occupational Regulation

BOARD FOR APESCIDLA  
BUSINESS ENTITY BRANCH OFFICE REGISTRATION  
NUMBER: 0411000608 EXPIRES: 02-28-2018  
PROFESSIONS: ENG  
WHITMAN REQUARDT & ASSOCIATES LLP  
1700 KRAFT DRIVE  
SUITE 1200  
BLACKSBURG, VA 24060



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DPOR-PC (05/2015)

# COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation  
9960 Mayland Drive, Suite 400, Richmond, VA 23233  
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EXPIRES ON

02-28-2018

NUMBER

0411000908

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  
5701 CLEVELAND STREET  
SUITE 620  
VIRGINIA BEACH, VA 23462

*James W. DeBorja*  
Director

Status can be verified at <http://www.dpor.virginia.gov>

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COMMONWEALTH of VIRGINIA  
Department of Professional and Occupational Regulation

BOARD FOR APELSCIDLA  
BUSINESS ENTITY BRANCH OFFICE REGISTRATION  
NUMBER: 0411000908 EXPIRES: 02-28-2018  
PROFESSIONS: ENG  
WHITMAN, REQUARDT AND ASSOCIATES LLP  
5701 CLEVELAND STREET  
SUITE 620  
VIRGINIA BEACH, VA 23462



Status can be verified at <http://www.dpor.virginia.gov>

DPOR-LIC (05/2015)  
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COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation  
9960 Mayland Drive, Suite 400, Richmond, VA 23233  
Telephone: (804) 367-8500

EXPIRES ON  
02-28-2018

NUMBER  
0411001228

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  
100 5TH ST STE L2000  
BRISTOL, TN 37620

*James W. DeLeon*  
James W. DeLeon, Director

Status can be verified at <http://www.dpor.virginia.gov>

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COMMONWEALTH of VIRGINIA  
Department of Professional and Occupational Regulation  
BOARD FOR APELSCIDLA  
BUSINESS ENTITY BRANCH OFFICE REGISTRATION  
NUMBER: 0411001228 EXPIRES: 02-28-2018  
PROFESSIONS: ENG  
WHITMAN, REQUARDT AND ASSOCIATES LLP  
100 5TH ST STE L2000  
BRISTOL, TN 37620



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# COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation  
9960 Mayland Drive, Suite 400, Richmond, VA 23233  
Telephone: (804) 367-8500

EXPIRES ON  
01-31-2019

NUMBER  
0402044111

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



THOMAS M HEIL  
318 E MASON AVE  
ALEXANDRIA, VA 22301



*James W. DeBanks*  
James W. DeBanks, Director

Status can be verified at <http://www.dpor.virginia.gov>

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COMMONWEALTH of VIRGINIA  
Department of Professional and Occupational Regulation

BOARD FOR APELSCIDLA  
PROFESSIONAL ENGINEER LICENSE  
NUMBER: 0402044111 EXPIRES: 01-31-2019

THOMAS M HEIL  
318 E MASON AVE  
ALEXANDRIA, VA 22301



DPOR-LIC (05/2015)  
(DETACH HERE)

DPOR-PC (05/2015)

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COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation  
9960 Mayland Drive, Suite 400, Richmond, VA 23233  
Telephone: (804) 367-8500

EXPIRES ON  
07-31-2018

NUMBER  
0402021246

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



ANTHONY J KONDYSAR  
3905 ST MARY'S CIRCLE  
WILLIAMSBURG, VA 23185

*James W. DeLoach*  
James W. DeLoach, Director

Status can be verified at <http://www.dpoor.virginia.gov>

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DPOOR-LIC (05/2015)  
(DETACH HERE!)

BOARD FOR APELSCIDLA  
PROFESSIONAL ENGINEER LICENSE  
NUMBER: 0402021246 EXPIRES: 07-31-2018  
ANTHONY J KONDYSAR  
3905 ST MARY'S CIRCLE  
WILLIAMSBURG, VA 23185



Status can be verified at <http://www.dpoor.virginia.gov>

DPOOR-PC (05/2015)

COMMONWEALTH of VIRGINIA

Department of Professional and Occupational Regulation  
9960 Mayland Drive, Suite 400, Richmond, VA 23233  
Telephone: (804) 367-8500

EXPIRES ON

01-31-2018

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



*John W. DeBorja*  
John W. DeBorja, Director

Status can be verified at <http://www.dpor.virginia.gov>

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

**DPOR** COMMONWEALTH of VIRGINIA  
Department of Professional and Occupational Regulation

BOARD FOR APELSCIDLA  
PROFESSIONAL ENGINEER LICENSE  
NUMBER: 0402026613 EXPIRES: 01-31-2018

JOHN PATRICK MADDOX  
2825 WILLBROOK DRIVE  
RICHMOND, VA 23233



Status can be verified at <http://www.dpor.virginia.gov>

DPOR-LIC (05/2015)  
(DETACH HERE)

DPOR-PC (05/2015)

# APPENDIX 3.3.1

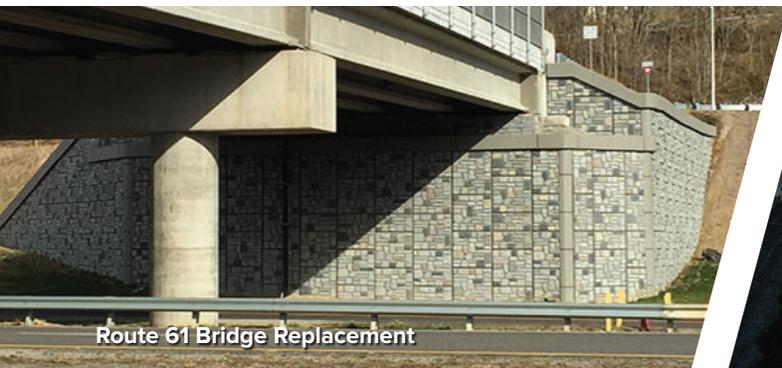
## KEY PERSONNEL RESUMES



I-95/I-695 Interchange



State Street Bridge Reconstruction



Route 61 Bridge Replacement



I-276 Interstate Widening and Reconstruction



## ATTACHMENT 3.3.1

### KEY PERSONNEL RESUME FORM

<b>Brief Resume of Key Personnel anticipated for the Project.</b>
a. Name & Title: <b>ED HILFERTY, VICE PRESIDENT OF DESIGN-BUILD</b>
b. Project Assignment: <b>DESIGN-BUILD PROJECT MANAGER</b>
c. Name of all Firms with which you are employed at the time of submitting SOQ. In addition, please denote the type of employment (Full time/Part Time) : <b>ALLAN MYERS (MYERS) FULL-TIME</b>
d. Employment History: With this Firm <b>20</b> Years With Other Firms <b>6</b> Years Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below): <b>ALLAN MYERS, VICE PRESIDENT OF CONSTRUCTION (2012 – 2017):</b> Ed is responsible for the management of design and construction processes for design-build projects, quality management, and supervision/ oversight of all aspects of the work. He routinely oversees projects with construction values in excess of \$200M simultaneously. Ed manages large teams comprised of design professionals, construction managers, and specialty subconsultants - all focused on providing projects on-time and within budget. He oversees contract administration, material procurement, subcontractor management, planning and scheduling of work activities, submittals, pay estimates, and manpower/equipment resources. Ed coordinates with owners/ clients (including VDOT) and other stakeholders to mitigate and resolve disputes and is responsible for building/maintaining positive customer relationships. He actively participates in public outreach meetings and ensures public concerns are promptly/appropriately addressed. <b>ALLAN MYERS, SENIOR PROJECT MANAGER (2002 – 2012):</b> Ed was responsible for managing all aspects of his projects including planning and scheduling work activities, coordination with the client and other stakeholders, design consultants, private utility owners, and public outreach for all phases of construction. He managed and provided supervision for large teams of construction personnel from the start of construction through final construction closeout. He oversaw the field construction activities to ensure project delivery met or exceeded all expectations of quality, safety, environment, schedule, and budget. He managed up to 10 projects simultaneously for a combined \$125M. <b>ALLAN MYERS, CONSTRUCTION MANAGER (1997 – 2002):</b> Ed managed all aspects of his projects including scheduling work activities, engineering, submittals, pay estimates, coordination with owner, subs, suppliers, and stakeholders, customer satisfaction, and safety for all phases of construction. He supervised superintendents, foreman, and office construction staff including project engineers, scheduling and safety staff, and administrative personnel.
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: <b>DREXEL UNIVERSITY, PHILADELPHIA, PA/BS/1994/CIVIL ENGINEERING</b>
f. Active Registration: Year First Registered/ Discipline/VA Registration #: <b>N/A</b>
g. Document the extent and depth of your experience and qualifications relevant to the Project. <ol style="list-style-type: none"><li>1. <i>Note your role, responsibility, and specific job duties for each project, not those of the firm.</i></li><li>2. <i>Note whether experience is with current firm or with other firm.</i></li><li>3. <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i></li></ol> <p><b>(List only three (3) relevant projects* for which you have performed a similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated.)</b></p> <p><b>Design-Build I-64 Segment II</b> <b>Newport News, VA</b> <b>Project Role: Design-Build Project Manager</b></p> <p style="text-align: right;"><b>Dates: Jan 2016 – Present</b> <b>Client: VDOT   Total Cost: \$138M</b> <b>With Current Firm? Yes</b></p> <p><b>Responsibilities:</b> Ed is responsible for all aspects of the project performance, ensuring contractual obligations are achieved, and delivering the project safely, on-time, and within budget. He oversees design and construction, quality management, and contract administration. Ed coordinates with VDOT to proactively avoid and resolve disputes and actively participates in public meetings.</p> <p><b>Project Highlights:</b> The Project includes widening from four-lanes to six-lanes from Exit 247 (Yorktown Road) to west of Exit 242 (Humelsine Parkway). The proposed improvements include: full-depth reconstruction of the existing lanes, the addition of one 12-foot-wide travel lane and one 12-foot-wide paved shoulder in each direction, and repair and widening of nine existing bridges and six box culverts located within the Project limits.</p> <p><b>Similarities to I-64 Segment III:</b> A VDOT design-build project, this project is adjacent to the I-64 Segment III project and includes: interstate widening, repair and widening of bridges, and 12 foot paved shoulders.</p>

**Impact on the Project:** Ed provided strong leadership for the project team and organizational structure that included over 50 people over various engineering, construction and administrative positions. He developed several innovative design optimizations that are producing significant schedule benefits including adjustment of median widths which eliminated the need for over 10,000 lf of median barrier and associated long term maintenance concerns. Ed is also responsible for oversight of utility relocations at 9 bridges on the project. All relocations were completed without any schedule disruptions.

**Reference:** Giles Njumbe, VDOT, (757) 253-5367

**I-95 Express Toll Lanes 695 to Campbell Blvd  
Whitmarsh, MD  
Project Role: Senior Project Manager**

**Dates: May 2008 – Dec. 2010**

**Client: Maryland Transportation Authority | Total Cost: \$53M  
With Current Firm? Yes**

**Responsibilities:** Ed oversaw all aspects of construction and contract administration for the project. His responsibilities included client coordination, dispute resolution, construction quality control, and oversight of safety and operation planning.

**Project Highlights:** The project reconstructed and widened 1.8 miles of I-95 and included contingent repairs to the existing MD 43 bridges over I-95. The existing eight-lane divided highway was reconfigured to eight general purpose lanes and four express toll lanes. Four lanes of traffic were safely maintained in each direction through this congested corridor at all times.

**Impact on the Project:** Ed developed a value engineering proposal to change the foundation design of a critical arch culvert resulting in overall risk reduction and significant schedule benefits. He maintained excellent public relations with Business Parks adjacent to the corridor during construction of noise walls that required construction access through private property. Ed effectively led and managed a project team which included 17 engineers, superintendents and administrative personnel which led to the project being completed on time and within budget.

**Similarities to I-64 Segment III:** Interstate and bridge reconstruction and widening, culverts replacements, similar project length, and maintenance of traffic.

**Reference:** Gradon Tobery, MTA, (410) 931-0808

**Maryland Route 43 Expansion  
Baltimore County, MD**

**Dates: Sept 2004 – Dec. 2008**

**Client: MD State Highway Administration | Total Cost: \$49M  
With Current Firm? Yes**

**Responsibilities:** Ed oversaw all aspects of construction and contract administration for the project. His responsibilities included client coordination, dispute resolution, construction quality control, and oversight of safety and operation planning.

**Project Highlights:** The project constructed 3.8 miles of new four-lane divided highway. The scope of work included five bridges, rehabilitation of four existing bridges, and three parallel 180' runs of 84" RCP under the highway. Extensive MOT was required for bridge work over MD Route 40 and Amtrak and MARC Facilities.

**Similarities to I-64 Segment III:** Bridge rehabilitation, utility relocations, extensive MOT, stormwater management

**Impact on the Project:** Ed exhibited a high degree of focus on the management of labor and equipment resources and effective project sequencing to achieve the interim and final completion milestones. The interim milestone included an incentive payment for meeting all contract schedule provisions. He successfully managed utility coordination with Verizon and Baltimore Electric and Gas (BG&E) and negotiated an agreement with utility companies for Myers to install 4 miles of concrete encased ductbank that wasn't part of the original project scope. This additional work was completed within the original schedule milestones. Ed negotiated an agreement with private land developers adjacent to the MD 43 corridor to acquire over 500,000 cubic yards of borrow material needed to construct the roadway embankment. This agreement made it possible for developers to start their proposed projects earlier while contributing significant schedule benefits to the MD 43 project. Ed also maintained high levels of coordination with Amtrak while constructing a 400 foot long 4 span bridge structure over their facilities without any interruption to rail service. Effective management and communication with a staff of 15 project engineers, superintendents, surveyors and administrative personnel. The full project was completed on schedule and within budget due to Ed contributions.

**Reference:** Donald Schaefer, MD SHA, 410-321-2821

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

h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment.

*Ed is committed to the project's success and is available to oversee the design, construction, quality management, and contract administration.*

## ATTACHMENT 3.3.1

### KEY PERSONNEL RESUME FORM

<b>Brief Resume of Key Personnel anticipated for the Project.</b>
a. Name & Title: <b>TOM HEIL, DESIGN MANAGER</b>
b. Project Assignment: <b>RESPONSIBLE CHARGE ENGINEER</b>
c. Name of all Firms with which you are employed at the time of submitting SOQ. In addition, please denote the type of employment (Full time/Part Time) : <b>ALLAN MYERS (MYERS) FULL-TIME</b>
d. Employment History: With this Firm <b>4</b> Years With Other Firms <b>27</b> Years Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below): <b>ALLAN MYERS, DESIGN MANAGER (2012 – PRESENT):</b> Tom is fully integrated with all Myers' DB efforts from pursuits, to receipt of AFC plans, to exerting proper control over construction to ensure all engineering decisions in construction comply with the contract, applicable laws, and regulations. He is responsible for client coordination / primary liaison during the DB Project pursuit, bid preparation, and once successful, in design and construction. He manages all design efforts to obtain AFC plans and once in construction, he ensures that all design related questions/changes are contract compliant and properly coordinated with the client, the Engineer of Record (EOR), quality team, and the construction team. He works closely with all key and support staff as well as VDOT, stakeholders, utility companies, and agencies to ensure the approved design plans are closely followed throughout construction. His experience and expertise in design, design management, and problem solving offers him a unique perspective; thus he serves in multiple roles, depending on project size and complexity, including: <b>DBPM:</b> On the VDOT \$12.2M Walney Road and \$9.5M Rolling Road DB projects, he served as Myers DBPM, providing project oversight, management from design through construction close-out, coordination with VDOT and stakeholders, oversight of temporary roadway closures, and punch list management. <b>Myers DM:</b> VDOT \$14.5M, I-95 at Temple Avenue, BCDOT \$46.0M Central Avenue DB, and MDSHA US 113, Phase IV \$51.3 Projects, he served as Myers DM and primary client liaison throughout design and into construction. He works hand-in-hand with the EOR to deliver clear AFC plans and maintains an active presence during construction, overseeing design revisions and ensuring construction is in accordance with the AFC plans, permits, and contract. <b>RCE or Equivalent (reference additional details below):</b> On Myers/Wagman \$104M MD 404 Project, he served as the construction JV design manager and primary MD SHA liaison during design. He also continues to coordinate all construction issues that require design revisions and /or modifications with MD SHA, the EOR, the CM, quality team and stakeholders, as needed. The design has been substantially completed within an accelerated 10 month schedule (Apr 2016 to Feb 2017) and construction started in Aug 2016 to meet substantial dualization completion by Nov 2017. <b>RK&amp;K, DIRECTOR, TRANSPORTATION (2008 – 2012):</b> Tom managed RK&K's NOVA office which served the transportation needs of VDOT, NOVA counties, cities, and other local clients. His responsibilities included client coordination, design plan development, resolving design/project challenges, stakeholder coordination/outreach and ensuring all pre-construction work products met strict client quality standards and guidelines. Some of his projects included the VDOT Route 7 TCL PE (FHWA, NVRPA and Loudoun County/Leesburg coordination), draft FEIS HRBT Crossing (VDOT, VDHR, ACOE, VDEQ, and Stakeholder outreach), and Woodrow Wilson Bridge, Section 401/404 permit and Supplemental FEIS (FHWA, NPS, USACE, VDHR, VDEQ, and local stakeholders outreach). <b>RK&amp;K, DESIGN, ASSOCIATE (2002 – 2008):</b> Tom was responsible for company-wide environmental support, serving as the environmental subject matter expert and preparing/supporting NEPA documents (CE's, EA's and EIS's) and environmental permitting efforts throughout the company. An example of his team efforts included preparation/ approval of the Wilmington Waterfront and Indian River EA for redevelopment and urban renewal for the City.
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: <b>UNIVERSITY OF MAINE ORONO, MAINE /BS/1986/CIVIL ENGINEERING</b> <b>UNIVERSITY OF MARYLAND, COLLEGE PARK, MD/M.S./1995/CIVIL ENGINEERING</b>
f. Active Registration: Year First Registered/ Discipline/VA Registration #: <b>2007 - VIRGINIA PROFESSIONAL ENGINEER - #0402044111</b>
g. Document the extent and depth of your experience and qualifications relevant to the Project. 1. <i>Note your role, responsibility, and specific job duties for each project, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i> <b>(List only three (3) relevant projects* for which you have performed a similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated.)</b>

**I-64; Segment II Design-Build****Dates: Jan 2016 (NTP) – Present (expected through May 2019)****Newport News and York / James City Counties, VA****Client: VDOT | Total Cost: \$138M****Project Role: Responsible Charge Engineer****With Current Firm? Yes**

**Role:** Serving as RCE and fully integrated into the design and construction teams, responsible for primary VDOT liaison during design, and control over all engineering decisions and/or design modifications during construction.

**Project Highlights:** The proposed improvements include: full-depth reconstruction of the existing lanes, the addition of one 12-foot-wide travel lane and one 12-foot-wide paved shoulder in each direction, and repair and widening of nine existing bridges and six box culverts located within the Project limits. Widening of the existing roadway and bridges is expected to occur in the median of the existing interstate, avoiding impacts to existing interchanges.

**Similarities to I-64 Segment III:** All RCE Project experience/expertise gained on I-64 Segment II is directly related to his proposed RCE duties on I-64 Segment III, including primary client liaison during design, design oversight and management, construction oversight and addressing design related issues / revisions during construction through VDOT, the construction and quality teams, EOR, and stakeholders, as needed.

**Impact on the Project:** Tom's impact serving as the RCE on the I-64 Segment II project was most prominently felt when working with VDOT/Myers to recover schedule lost to delays in full design approvals. He worked with Janet Hedrick/ Giles Njumbe (VDOT), Ed Hilferty (DBPM), John Vicinski (QAM), David Passmore (CM), and Darell Fischer (DM) to develop and secure phased plan-approval packages to allow issuance of AFC plans, receive Notice to Commence Construction letters, and begin construction while final roadway/bridge plans were being approved. *His efforts allowed the project to progress to construction 60 to 90 days prior to final design approvals.*

**Reference:** Giles Njumbe, VDOT, (757) 253-5367

**MD 404 Design-Build****Dates: Oct. 2015 – Present (expected through Nov 2017)****Caroline, Queen Anne, and Talbot County, MD****Client: MDSHA | Total Cost: \$104M****Project Role: Responsible Charge Engineer Equivalent****With Current Firm? Yes**

**Role:** Serves as JV DM during procurement, design and construction (essentially VDOT RCE function) and fully integrated into the design and construction team. Responsible for MDSHA liaison during design and control over all engineering decisions and/or design modifications during construction. Answers to MDSHA on all construction compliance related to design and delivery of as-built construction documents that meet the AFC plans and contract.

**Project Highlights:** Design and construction of MD 404 into a four-lane divided highway from US 50 to east of Holly Road. Located in Talbot, Queen Anne's, and Caroline Counties, the nine mile roadway is being constructed in three parallel segments by the construction JV. The scope includes clearing, earthwork, drainage, pavement reconstruction, SWM, landscaping, signing, ITS, intersection lighting, new bridge over Norwich Creek, and utility coordination.

**Similarities to I-64 Segment III:** As his MD 404 responsibilities parallel those required by the I-64 RCE, his oversight of the accelerated design and integration with the construction team are directly transferable to I-64 Team. Further, his ability to facilitate between the EOR and CM ensures that advanced design AFC plan packages are clear, concise, and constructible with little changes or modifications.

**Impact on the Project:** This \$104M DB Project is the highest construction priority of Governor Hogan who mandated a completed project (design and construction) in 18 months. Tom and his team have delivered the completed design and continue to work with MDSHA to resolve construction requested design changes focused on stakeholder requests, ESC modifications/changes, and drainage/SWM issues related shallow flat slopes on the Maryland eastern shore.

**Reference:** Fred Valente, MDSHA Construction Manager (KCI Employee), (443) 956-8386, Fred.Valente@kci.com

**I-81 Truck Climbing Lanes Design-Build****Dates: Mar. 2008 – Dec. 2011****Rock Bridge County, VA****Client: VDOT | Total Cost: \$74M****Project Role: DB Environmental Manager****With Current Firm? No**

**Role:** As DB Environmental Manager, Tom was responsible for all project related design and construction permitting efforts including obtaining a Section 404/401 JPA coordination and approval (12 months of NTP), SWPP and VPDES/ESC approval. He prepared the environmental compliance plan and during construction worked to address CM information requests, completed compliance inspections and provided the QAM with environmental support.

**Project Highlights:** This project was located along I-81 NB from mile marker 195.6 to 202.5 and included addition of a 6.9 miles of truck-climbing lane, replacement of three bridges and shoulder improvements.

**Similarities to I-64 Segment III:** This interstate project of similar size and scale (only NB widening was completed) included environmental investigation, permitting, NEPA compliance / commitment, and environmental construction compliance TOYR issue similar to those contemplated for the I-64 Segment III project.

**Impact on the Project:** Environmental issues were a schedule critical component and Tom developed risk mitigation strategies with VDOT, DBPM, CM, and Quality Team to ensure permit compliance while avoiding TOYR. This experience will also apply to the I-64 Segment III project which includes crossings of Queen's Creek, treatments for Colonial Parkway, and potential RTE issues and habitats.

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

h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment.

*Tom is experienced and available to work fully-integrated with the design and construction team and will accept full responsibility for engineering decisions for the Project.*

## ATTACHMENT 3.3.1

### KEY PERSONNEL RESUME FORM

<b>Brief Resume of Key Personnel anticipated for the Project.</b>		
a. Name & Title: <b>ANTHONY KONDYSAR, PE, QUALITY ASSURANCE MANAGER</b>		
b. Project Assignment: <b>QUALITY ASSURANCE MANAGER</b>		
c. Name of all Firms with which you are employed at the time of submitting SOQ. In addition, please denote the type of employment (Full time/Part Time) : <b>QUINN CONSULTING SERVICES, INC. (QCS) FULL-TIME</b>		
d. Employment History: With this Firm 1Years With Other Firms 30Years Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below): <b>QUINN CONSULTING SERVICES, INC., QUALITY ASSURANCE MANAGER (2015 – PRESENT):</b> Anthony is a registered professional civil engineer in Virginia. His professional record includes 30 years of design and engineering, quality assurance, and quality control in the transportation, transit and rail, facilities, marine, and utility improvement disciplines. His Design-Build experience includes QAM on the VDOT I-64 Segment I widening and both construction and design phases of the VDOT/VPA I-164 Safety Improvements and the I-564 Project. Anthony served on both design-build and design-bid-build transit and transportation projects holding the QAM, Design Engineer, Construction Manager, and Project Manager positions. His responsibilities as Quality Assurance Manager include supervision of Quality Assurance inspection staff and responsibility for material record documentation as required for payment application approval. He also oversees the construction operations, including the QA testing technicians; review of test reports, daily reports, safety reports, and environmental reports; he determined and certified to VDOT whether the materials and work complied with the Contract Documents; conducted preparatory inspection meetings prior to the start of any new work; directed the independent quality assurance testing and inspections; and reviewed QA and QC documentation for compliance. <b>VIRGINIA PORT AUTHORITY (VPA), PROJECT MANAGER (2007 – 2015):</b> Project Manager for multiple capital improvement projects including rail, roadway, building, waterfront, pavement and utility upgrades on Port Authority owned facilities in Norfolk, Portsmouth and Newport News, VA. The State Agency reporting to the Secretary of Transportation required full conformance to the Virginia Port Authority Capital Outlay Manual for all infrastructure improvements and investments. Specific projects include Commonwealth Railway Mainline Safety Relocation Project, Virginia Port Authority; Craney Island Eastward Expansion, Virginia Port Authority; Norfolk International Terminals (NIT), Virginia Port Authority; and Various Projects, Virginia Port Authority. <b>ALPHA CORPORATION, QUALITY ASSURANCE/QUALITY CONTROL MANAGER, CONSTRUCTION MANAGER (2004 – 2007):</b> As Quality Assurance Manager (QAM) and Construction Manager for multiple projects in the Norfolk, VA area Anthony was responsible for contractor oversight and quality assurance for multiple projects which included demolition, pile foundations, cast-in-place concrete, railway, industrial roadways, drainage and utility upgrades. He managed performance and record keeping for quality control and quality assurance programs. Specific projects include APM Terminals, – Quality Assurance Manager; and Norfolk International Terminals (NIT), Virginia Port Authority, – Construction Manager.		
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: <b>VIRGINIA POLYTECHNIC INSTITUTE, BLACKSBURG, VA/BS/1985/CIVIL ENGINEERING/MINOR IN ENGINEERING MECHANICS</b>		
f. Active Registration: Year First Registered/ Discipline/VA Registration #: <b>REGISTERED LICENSED PE IN VA (#21246, EXPIRES 07/31/2018)</b>		
g. Document the extent and depth of your experience and qualifications relevant to the Project. <ol style="list-style-type: none"><li>1. <i>Note your role, responsibility, and specific job duties for each project, not those of the firm.</i></li><li>2. <i>Note whether experience is with current firm or with other firm.</i></li><li>3. <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i></li></ol> <p><b>(List only three (3) relevant projects* for which you have performed a similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated.)</b></p> <table style="width: 100%;"><tr><td style="width: 60%;"><b>I64 Capacity Improvements Segment I Newport News, VA Project Role: Quality Assurance Manager</b></td><td style="width: 40%; text-align: right;"><b>Dates: Sept. 2015 – Present Client: VDOT   Total Cost: \$102M With Current Firm? Yes</b></td></tr></table> <p><b>Responsibilities:</b> Anthony maintains the project material records for the project that includes three bridges; soil cement stabilization; cement treated aggregate; asphalt pavement, concrete pavement repair, drainage improvements; stormwater</p>	<b>I64 Capacity Improvements Segment I Newport News, VA Project Role: Quality Assurance Manager</b>	<b>Dates: Sept. 2015 – Present Client: VDOT   Total Cost: \$102M With Current Firm? Yes</b>
<b>I64 Capacity Improvements Segment I Newport News, VA Project Role: Quality Assurance Manager</b>	<b>Dates: Sept. 2015 – Present Client: VDOT   Total Cost: \$102M With Current Firm? Yes</b>	



facilities; sound walls and wetland construction. He provides oversight of a team of independent Quality Assurance inspectors and monitors the Contractor's Quality Control team for compliance.

**Project Highlights:** The improvements included the addition of one 12-foot wide travel lane and one 12-foot wide shoulder in each direction to widen this four-lane section of I-64 to a six-lane section using the median of the existing interstate. Widening and replacement of four mainline bridges and replacement of two other bridges.

**Similarities to I-64 Segment III:** Roadway widening to six lanes, bridge replacement and widening, I-64 corridor

**Impact on the Project:** Early in his career, Anthony was a manager for an engineering and materials testing firm (PSI). His in depth knowledge of materials and materials testing was/is a great asset to the project, as many types of material have to be evaluated for suitability for pipe backfill, embankment, cement treatment, and bearing capacity for items such as box culverts, spread footing soundwall foundations, and embankments.

**Reference:** Giles Njumbe, VDOT, (757) 253-5367

**Commonwealth Railway Mainline Safety Relocation Project  
Norfolk, VA**

**Dates: May 2008 – Dec. 2010**  
**Client: VDOT | Total Cost: \$70M**  
**With Current Firm? No**

**Project Role: VPA Owner Representative**

**Responsibilities:** Anthony managed the design-build construction team and quality control personnel to ensure compliance with the VDOT Locally Administered Project Manual. He performed site inspections of all field construction and verified conformance of all plant fabricated elements to include piles, precast beams, MSE wall panels and sound walls panels. An additional \$9 million project improvement through the American Recovery and Reinvestment Act (ARRA) included construction management, grant administration and quality control documentation in accordance all VDOT and FHWA requirements.

**Project Highlights:** Project elements included earthwork; drainage; 5.6 miles of rail; (1) new roadway and bridge overpass; MSE walls; utility relocation and installation; pile foundations; retaining walls; and pump station subject to conformance with the Virginia Department of Transportation Road and Bridge Specifications.

**Similarities to I-64 Segment III:** This work was performed in the median of an interstate similar to I-64 Segment III. Many of the same elements, drainage, structures, mot, E&S, etc. associated with interstate work were performed and inspected.

**Impact on the Project:** Anthony took a very active role as he was the manager of the contract. In this role he managed the original contract and was instrumental in maintaining project costs by negotiating work orders throughout the duration. In addition, Anthony was the center of project communications and collaboration as he personally chaired all project progress meetings and oversaw the performance of QA and QC on the job.

**Reference:** Jeff Florin, Chief Engineer, (757) 683-2150

**APM Terminals/ Virginia International Gateway  
Portsmouth, VA**

**Dates: Feb. 2005 – July 2007**  
**Client: VDOT | Total Cost: \$400M**  
**With Current Firm? No**

**Project Role: Quality Assurance/ Quality Control Manager**

**Responsibilities:** Anthony managed the Quality Control and Quality Assurance inspection and documentation to ensure materials and workmanship for the project were in accordance with the project design. He worked with design team, construction contractors, and owner's representative to maintain project schedule, budget and quality for the wharf, yard and rail areas of the shipping terminal. This project used the design-build project delivery system model in private industry and Anthony, as the Quality Control Manager, reported directly to the owner. In 2010, this facility was leased to the Virginia Port Authority for 20 years and renamed Virginia International Gateway.

**Similarities to I-64 Segment III:** Connection of the port to the VDOT interstate system, substantial grading and paving operations

**Project Highlights:** Construction specifics included wharf construction, container yard, support buildings, intermodal rail yard, and VDOT highway interchange. Construction specifics include earthwork, bulkhead construction, dredging, pile driving, structural precast, concrete and asphalt pavement, utilities, and wetland restoration for the previously undeveloped 400+ acre site.

**Impact on the Project:** Anthony was the Quality Assurance Manager over a number of work packages that were independently bid and had to be coordinated from a construction and operations standpoint on this fast-track project. He assured the appropriate quality staff were assigned, reports were carefully reviewed, and all items/quantities were tracked for payment for all four projects.

**Reference:** Jeff Florin, Chief Engineer, (757) 683-2150

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

h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment.

*Anthony's is currently committed to the I-64 Segment I DB project, which is scheduled to be complete in the Winter 2017. Anthony is available and committed to ensuring quality design and construction of the Project.*



## ATTACHMENT 3.3.1

### KEY PERSONNEL RESUME FORM

<b>Brief Resume of Key Personnel anticipated for the Project.</b>		
a. Name & Title: <b>JOHN MADDOX, P.E. – SENIOR VICE PRESIDENT</b>		
b. Project Assignment: <b>DESIGN MANAGER</b>		
c. Name of all Firms with which you are employed at the time of submitting SOQ. In addition, please denote the type of employment (Full time/Part Time): <b>WHITMAN, REQUARDT &amp; ASSOCIATES, LLP (WRA) FULL-TIME</b>		
d. Employment History: With this Firm <u>22</u> Years With Other Firms <u>10</u> Years Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below): <b>WHITMAN, REQUART &amp; ASSOCIATES, SENIOR VICE PRESIDENT/ DESIGN MANAGER (1995 - PRESENT):</b> John has served as a Project Manager for 20 major VDOT design projects since August 1997 and as the Design Manager on three VDOT Design-Build projects. He routinely manages the design of major interstate widening and reconstruction projects ranging in construction value from \$30M to \$100M. He specializes in the design of complex projects requiring a multi-discipline design team. As Design Manager, John is responsible for the complete design efforts, including interchange, roadway, bridge, retaining walls, H&H, traffic engineering, storm water management, utility relocation, environmental compliance, ROW coordination. A major element inherent to John’s role as DM is ensuring quality assurance throughout the project team for all disciplines as well as subconsultants.		
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: <b>WEST VIRGINIA INSTITUTE OF TECHNOLOGY (IS NOW A DIVISION OF WEST VIRGINIA UNIVERSITY) – MONTGOMERY, WEST VIRGINIA   B.S.   1985   CIVIL ENGINEERING</b>		
f. Active Registration: Year First Registered/ Discipline/VA Registration #: <b>1996   PROFESSIONAL ENGINEER   VA REGISTRATION #0402026613</b>		
g. Document the extent and depth of your experience and qualifications relevant to the Project. <ol style="list-style-type: none"><li>1. <i>Note your role, responsibility, and specific job duties for each project, not those of the firm.</i></li><li>2. <i>Note whether experience is with current firm or with other firm.</i></li><li>3. <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i></li></ol> <p><b>(List only three (3) relevant projects* for which you have performed a similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated.)</b></p> <table border="0" style="width: 100%;"><tr><td style="width: 60%;"><b>Design-Build I-95 Southern Extension of the Express Lanes Stafford County, VA Project Role: Design Manager</b></td><td style="width: 40%; text-align: right;"><b>Dates: June 2016 – Present Client: VDOT   Total Cost: \$36.9M With Current Firm? Yes</b></td></tr></table> <p><b>Responsibilities:</b> John is responsible for WRA’s complete design efforts for the 2.2 mile extension of the Express Lanes on I-95 at Garrisonville with additional access to the I-95 general purpose lanes at the southern terminus. The project includes the design of a reversible single-lane extension within the median of I-95 with a major extension of the ITS systems for the operations of the Express Lanes.</p> <p><b>Project Highlights:</b> John is overseeing design elements, including roadway, hydraulic, SWM, green retaining walls, sound barriers, utility relocation and coordination, traffic engineering, lighting, public involvement, design quality assurance and coordination during construction. VDOT requested a major redesign of the entire project to provide complete grading, drainage, signing and ITS for widening the Express Lane to two reversible lanes after approval of the “Approved for Construction” plans. This redesign was completed on an accelerated schedule allowing construction to maintain the original project schedule. <i>Design is completed on this Design-Build project.</i></p> <p><b>Similarities to I-64 Segment III:</b> VDOT Design-Build project, maintenance of traffic on a high volume interstate facility, roadway alignment/widening, design of sound barriers, geotechnical, hydraulics, traffic control devices, TMP, QA/QC, construction engineering. The construction includes enclosing the median drainage and providing SWM for the project.</p> <p><b>Impact on the Project:</b> John developed the schedule of plan submittals to allow construction to begin five weeks after Notice to Proceed that currently has the project construction significantly ahead of schedule.</p> <p><b>Reference:</b> Paul Nishimoto, VDOT,(703) 259-2362</p>	<b>Design-Build I-95 Southern Extension of the Express Lanes Stafford County, VA Project Role: Design Manager</b>	<b>Dates: June 2016 – Present Client: VDOT   Total Cost: \$36.9M With Current Firm? Yes</b>
<b>Design-Build I-95 Southern Extension of the Express Lanes Stafford County, VA Project Role: Design Manager</b>	<b>Dates: June 2016 – Present Client: VDOT   Total Cost: \$36.9M With Current Firm? Yes</b>	



**Fairfax County Parkway Interchange at Fair Lakes Parkway**

**Fairfax County, VA**

**Project Role: Design Manager**

**Dates: October 2001 – October 2013**

**Client: VDOT | Construction Cost: \$44M**

**With Current Firm? Yes**

**Responsibilities:** John was responsible for the design, which widened Fairfax County Parkway (FCP) from four- to six-lanes for 2.3 miles within the existing median, and provided an innovative split diamond interchange at Fair Lakes Parkway and Monument Drive.

**Project Highlights:** The project included two new bridges; a bridge widening; and over 43,000 SF of retaining walls. John oversaw and coordinated all design elements, including interchange roadway, hydraulic, river mechanics, SWM, structural, utility relocation, ITS, traffic engineering, environmental permits, traffic forecast and analysis, public involvement, geotechnical engineering for retaining walls and bridge foundations, and quality assurance. He provided a leadership role in stakeholder outreach to homeowners' associations, Fair Lakes League, and the Fairfax County Park Authority to minimize ROW impacts. Extensive coordination was required with FHWA for the traffic forecasting and analysis due to the potential for operational impacts to the I-66 interchange. During construction, John attended progress and partnering meetings with the construction team and provided shop drawing review and technical support.

**Similarities to I-64 Segment III:** Design of freeway widening on a heavily traveled high speed corridor allowing traffic operations to be maintained during all construction phases, developed a complex TMP, sound barriers along corridor, permit sketch, geotechnical, hydraulics, traffic control devices, public involvement/communications, QA/QC, and construction engineering.

**Impact on the Project:** John's direction of the design and schedule resulted in completion of the project on an accelerated schedule allowing VDOT to use American Recovery and Reinvestment Act (ARRC) funding for construction

**Reference:** Nassre Obeed, VDOT, (703) 259-1723

**I-81 Widening and Bridge Replacements over Buffalo Creek and Maury River – Rockbridge County, VA**

**Project Role: Design Manager**

**Dates: Aug. 1999 – Dec. 2007**

**Client: VDOT | Construction Cost: \$45M**

**With Current Firm? Yes**

**Responsibilities:** John was the design manager responsible for the design of both construction projects under a single design contract. The project construction included widening from four- to six-lanes and complete replacement of the existing pavement for two miles of I-81. The project included the replacement of the I-81 Bridge over Buffalo Creek with an approximate length of 600 feet and the bridge over Maury River with an approximate length of 800 feet. The design included a complex maintenance of traffic plan to maintain two lanes of traffic in each direction during all phases of construction. Mr. Maddox provided oversight and coordination for all elements of the design, including roadway, hydraulic, SWM, structural, geotechnical, environmental permits, public involvement, and Quality Assurance. Duties included coordination of the design with FHWA and VDOT staff. During construction, John provided shop drawing reviews and coordination with the construction team.

*The projects received the 2008 ACEC Grand Award and the Buffalo Creek was awarded the "VDOT Virginia Statewide Construction Quality Award" and NPHQ Award "Breaking the Mold".*

**Similarities to I-64 Segment III:** The I-81 widening added one additional lane primarily in the median in each direction and total replacement of the existing pavement required a complex maintenance of traffic plan that carefully evaluated access points to the work zone. The condition of the existing drainage system required complete replacement of all pipes under I-81 requiring a complex design to minimize the number of jack and bore operations.

**Impact on the Project:** John's past experience on interstate widening projects resulted in the efficient evaluation of design alternatives to completely replace the existing pavement and drainage while maintaining two lanes of traffic on a high volume interstate.

**Reference:** Wayne Nolde, VDOT, 540-332-7224

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

h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment.

*John is available and committed to the Project and will provide periodic onsite presence as necessary to support construction activities.*

## ATTACHMENT 3.3.1

### KEY PERSONNEL RESUME FORM

<b>Brief Resume of Key Personnel anticipated for the Project.</b>
a. Name & Title: <b>JEFFERY SNOW, SENIOR PROJECT MANAGER</b>
b. Project Assignment: <b>CONSTRUCTION MANAGER</b>
c. Name of all Firms with which you are employed at the time of submitting SOQ. In addition, please denote the type of employment (Full time/Part Time) : <b>ALLAN MYERS (MYERS) FULL-TIME</b>
d. Employment History: With this Firm <u>15</u> Years With Other Firms <u>2</u> Years Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below): <b>ALLAN MYERS, SR. PROJECT MANAGER; (2013-PRESENT):</b> Jeff manages all aspects of his projects including planning and scheduling work activities; coordination with the owner and other stakeholders, design consultants, private utility owners; and public outreach for all phases of construction. He oversees construction activities to ensure project delivery that meets or exceeds all expectations of quality, safety, schedule, and budget. Jeff manages multiple project managers, superintendents, and project engineers and is responsible for multiple concurrent projects valued over \$55M. <b>ALLAN MYERS, PROJECT MANAGER; (2005-2013):</b> Jeff managed all aspects of his projects which ranged in value up to \$55M. His responsibilities included planning and scheduling work activities; engineering submittals; pay estimates; coordination with owner, subcontractors, suppliers and other stakeholders; customer satisfaction; and safety for all phases of construction. Mr. Snow supervised multiple project engineers and superintendents. <b>ALLAN MYERS, PROJECT ENGINEER; 2002-2005:</b> Jeff was responsible for submittals and approvals of shop drawings and materials, work plans for crews, safety planning and QA/QC for structural work, scheduling of structural crews and related subcontractors, owner liaison for structures and schedule for multiple projects at a time. <b>J.A. JONES, CO-OP PARTNER; (1998–1999):</b> Provided project engineering on a sewer treatment plant in Charlotte, NC
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: <b>VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY, BLACKSBURG, VA/BS/2000/CIVIL ENGINEERING</b> <b>VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY, BLACKSBURG, VA/MS//2002/CIVIL ENGINEERING</b>
f. Active Registration: Year First Registered/ Discipline/VA Registration #: <b>2014/VIRGINIA DEQ RLD CERTIFICATION/#41837</b> <b>ESCCC # 2-00220 EXPIRES 10/16/2020</b>
g. Document the extent and depth of your experience and qualifications relevant to the Project. <ol style="list-style-type: none"><li>1. <i>Note your role, responsibility, and specific job duties for each project, not those of the firm.</i></li><li>2. <i>Note whether experience is with current firm or with other firm.</i></li><li>3. <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i></li></ol> <p><b>(List only three (3) relevant projects* for which you have performed a similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated.)</b></p> <p><b>I-95 Express Toll Lanes, 695 to Campbell Blvd Whitemarsh, MD</b> <span style="float: right;"><b>Dates: July 2007 – Dec. 2010</b></span> <b>Project Role: Construction Manager</b> <span style="float: right;"><b>Client: MD Transportation Authority   Total Cost: \$53M</b></span> <span style="float: right;"><b>With Current Firm? Yes</b></span></p> <p><b>Role:</b> Jeff was responsible for project team leadership, managing project schedule within budget, coordination with adjacent contracts working within the same corridor, and construction quality control. He managed a variety of owner-requested project scope changes, and developed a strong relationship with the owner’s representatives over the course of the project.</p> <p><b>Project Highlights:</b> The project reconstructed and widened 1.8 miles of I-95 and included contingent repairs to the existing MD 43 bridges over I-95. The existing eight-lane divided highway was reconfigured to eight general purpose lanes and four express toll lanes. Four lanes of traffic were safely maintained in each direction through this congested corridor at all times.</p>

**Similarities to I-64 Segment III:** Interstate and bridge reconstruction and widening, culverts replacements, similar project length, and maintenance of traffic.

**Impact on the Project:** Under Jeff's direction, four lanes of traffic were maintained through this congested corridor at all times and completed this project within schedule and budget. Myers implemented value engineering proposals including re-design of arch culvert foundations from drilled shafts to h-piles in existing stream.

**Reference:** Gradon Tobery, MTA, (410) 931-0808

**I-95 Express Toll Lanes MD 43 Interchange to Joppa Rd  
Whitemarsh, MD**

**Dates: July 2012 – Feb. 2013**

**Client: MD Transportation Authority | Total Cost: \$42M**

**Project Role: Construction Manager**

**With Current Firm? Yes**

**Role:** As construction manager, Jeff was responsible for managing all aspects of construction, including maintaining the project schedule, planning operations within budget, coordinating with adjacent projects, and overseeing construction quality control. Jeff's team adapted to numerous changes in design by closely coordinating with the owner to keep the project within scheduled opening of toll facilities.

**Project Highlights:** Construction of 1.5 miles of I-95, consisting of the addition of eight general purpose lanes and four express toll lanes. Myers maintained all lanes of current I-95 and coordinated closely with adjacent contracts within the same corridor. Project includes 200,000 CY of excavation, 44,000 SF of MSE Retaining Walls, 110,000 Tons of hot-mix asphalt, and associated ITS work to open toll lanes.

**Similarities to I-64 Segment III:** Interstate widening, bridge repairs, culvert replacement, and extensive stormwater management

**Impact on the Project:** Jeff managed the design-build aspects of the MSE walls, as well as significant changes during construction. He worked closely with owner and designers to re-design wall foundations to account for existing site conditions.

**Reference:** Jeff Lins, JMT 410-382-9678 jlins@jmt.com

**Lynnhaven Parkway Widening  
Virginia Beach, VA**

**Dates: Nov. 2014 – Sept. 2017**

**Client: VDOT | Total Cost: \$26M**

**Project Role: Construction Manager**

**With Current Firm? Yes**

**Role:** Jeff is responsible for managing construction and leadership of the project team, coordinating with entities including VDOT, City of Virginia Beach, and various other stakeholders, ensuring safe work operations, and overseeing construction quality control.

**Project Highlights:** Construction of 1.6 miles of 4-lane divided highway, consisting of 0.4 miles of new roadway and 1.2 miles of widening existing 2-lane road. Construction includes utility relocations, drainage upgrades, and intersection improvements at 17 locations. Structure work includes a new 80-ft long bridge, 500-ft long retaining wall, and 90,000 SF of sound walls.

**Similarities to I-64 Segment III:** Roadway repair and widening, bridge construction, new box culverts, stormwater management

**Impact on the Project:** Jeff worked with VDOT to construct the project and continue construction through various design changes and/or design conflicts. He worked closely with VDOT and utility companies to relocate conflicting utilities and/or re-design project work to accommodate utilities where possible to ensure the schedule had minimal interruptions.

**Reference:** Mitch Conner, VDOT, (757) 619-2633

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

h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment.

*Jeff will be on-site full time for the duration of construction to support the successful delivery of the Project. His current assignments are as follows:*

*Lynnhaven Parkway - Work is complete; Jeff will complete project closeout through Sept. 2017*

*Gate 6 Entry Point at Norfolk Naval Base – Construction is anticipated to be completed in August 2017*

*VIG Stack Yard Expansion – Jeff will be assigned to the project until September 2018. This will provide Jeff with ample time to take the lead in preconstruction planning as the design on I-64 Segment III is being finalized.*

## ATTACHMENT 3.3.1

### KEY PERSONNEL RESUME FORM

<b>Brief Resume of Key Personnel anticipated for the Project.</b>
a. Name & Title: <b>SCOTT STYFCO, SENIOR PROJECT ENGINEER</b>
b. Project Assignment: <b>LEAD UTILITY COORDINATION MANAGER</b>
c. Name of all Firms with which you are employed at the time of submitting SOQ. In addition, please denote the type of employment (Full time/Part Time) : <b>ALLAN MYERS (MYERS) FULL TIME</b>
d. Employment History: With this Firm <u>12</u> Years With Other Firms <u>7</u> Years Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below): <b>ALLAN MYERS, SENIOR PROJECT ENGINEER (MAY 2005 – PRESENT)</b> : Scott's career has been dedicated to leadership on large scale highway and bridge projects, including several design-build projects and interstate widening projects, with values ranging from \$20M to \$173M. His experience has involved all major disciplines of roadway and bridge construction, including extensive utility coordination experience with public utilities, municipal water and sewer authorities, and DOT owned ITS, traffic signal, ramp meter and highway lighting systems. As a senior project engineer, Scott directs, coordinates, and exercises functional authority for the planning, organization, control, integration, and completion of engineering projects within the area of assigned responsibility. He has been responsible for managing and coordinating the design consultant on several design-build projects, and the lead contact responsible for resolving design and constructability issues with the owner and their consultants on several design-bid-build projects. <b>EDWARD KRAEMER AND SONS, PROJECT ENGINEER (DECEMBER 2004 – MAY 2005)</b> : Scott's duties included the procurement and management of engineering consultants, material suppliers and subcontractors, CPM schedule maintenance, and other administrative tasks in a joint-venture setting for an \$80M interstate bridge replacement project. Scott's experience included procuring local zoning approval and permits for utility, environmental, and land-use for the construction of a casting yard for a segmental bridge and for catenary relocations, in addition to daily management of field crews and subcontractors performing that work. <b>DICK CORPORATION, PROJECT MANAGER (JUNE 2001 – DECEMBER 2004)</b> : Scott was responsible for all aspects of project construction, including management of self-perform and subcontracted operations, and the procurement and management of outsourced engineering, materials and subcontractors. Scott was responsible for extensive coordination with public utilities and municipalities for relocations, and for resolving unforeseen utility conflicts. Scott's duties also included the management of CPM schedules, the resolution of design conflicts, the development of value engineering proposals, and daily contract administration required for the duration of his projects.
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: <b>CARNEGIE MELLON UNIVERSITY, PITTSBURGH, PA/B.S./1998/CIVIL ENGINEERING</b>
f. Active Registration: Year First Registered/ Discipline/VA Registration #: <b>N/A</b>
g. Document the extent and depth of your experience and qualifications relevant to the Project. <ol style="list-style-type: none"><li><i>Note your role, responsibility, and specific job duties for each project, not those of the firm.</i></li><li><i>Note whether experience is with current firm or with other firm.</i></li><li><i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i></li></ol> <p><b>(List only three (3) relevant projects* for which you have performed a similar function. If additional projects are shown in excess of three (3), the SOQ may be rendered non-responsive. In any case, only the first three (3) projects listed will be evaluated.)</b></p> <p><b>Design-Build I-64 Segment II</b> <span style="float: right;"><b>Dates: Jan 2016 – May 2019</b></span> <b>Newport News, VA</b> <span style="float: right;"><b>Client: VDOT   Total Cost: \$138M</b></span> <b>Project Role: Senior Project Engineer</b> <span style="float: right;"><b>With Current Firm? Yes</b></span></p> <p><b>Role:</b> Scott managed the design consultant to identify public utility and VDOT lines in potential conflict with the proposed work, and to develop avoidance methods where possible. Where avoidance was not possible, Scott worked with utility companies to coordinate the development of their P&amp;Es, and coordinated with their management staff and field crews to complete relocations. Scott also worked with design consultant to develop relocation plans for conflicting portions of the VDOT owned ITS system, and coordinated that work with the other construction scopes of work to develop cutover plans and relocation sequences. Scott's duties also involved oversight of bridge design, geotechnical design, and underbridge lighting systems.</p>

**Project Highlights:** The Project includes widening of the existing interstate to a 3-lane section from the point where the I-64 Segment I project ends to the west for approximately 7 miles. The proposed improvements include: full-depth reconstruction of the existing lanes, the addition of one 12-foot-wide travel lane and one 12-foot-wide paved shoulder in each direction, and repair and widening of nine bridges and six box culverts. The project required the design and construction of utility relocations involving four public utilities, one private utility, and of VDOT ITS systems.

**Similarities to I-64 Segment III:** A VDOT design-build project, this project is adjacent to the I-64 Segment III project and includes: interstate widening, repair and widening of bridges, and 12 foot paved shoulders. Through his work on Segment II, Scott has developed relationships with many of the utility related stakeholders that will be involved in Segment III, and has developed an understanding of the design and operation of the ITS system along the I-64 corridor.

**Impact on the Project:** By early coordination with the design consultant, Scott was able to identify several opportunities to design elements of the project so as to avoid utility conflicts, substantially reducing the amount of relocations required. The reduced scope enable the public and private utilities that were impacted to complete their relocations without impact to the project schedule.

**Reference:** Janet Hedrick, VDOT, (757) 494-5478

**Lynnhaven Parkway Widening  
Virginia Beach, VA**

**Dates: Apr. 2014 – Mar. 2016  
Client: VDOT | Total Cost: \$26M  
With Current Firm? Yes**

**Project Role: Project Manager**

**Role:** Scott's responsibilities included leading design-build efforts of the soundwall package, coordinating investigation and relocation efforts for numerous unanticipated utility conflicts, re-design of the sequence of construction and project MOT in order to alleviate several significant design issues, and managing the schedule changes and impacts caused by the design issues.

**Project Highlights:** Construction of 1.6 miles of 4-lane divided highway, consisting of 0.4 miles of new roadway and 1.2 miles of widening existing two-lane roadway. Construction includes utility relocations, drainage upgrades, and intersection improvements at 17 locations. Structure work includes a new 80-ft long bridge, 500-ft long retaining wall, and 90,000 SF of sound walls.

**Impact on the Project:** Scott worked to overcome several design issues, including the development of a revised sequence of work to complete water and sewer relocations while maintaining the systems, which required close coordination with the City of Virginia Beach. Design changes during final design caused numerous relocated utilities to still be in conflict with the project construction. Scott developed an exploratory program to identify conflicts in advance of construction crews to minimize impacts and coordinated with VDOT and public utilities to complete relocations.

**Similarities to I-64 Segment III:** Roadway repair and widening, bridge construction, new box culverts, stormwater management

**Reference:** Mitch Conner, VDOT, (757) 619-2633

**SR 476 Widening and Reconstruction Design-Build  
Conshohocken, PA**

**Dates: Aug. 2009 – Sept. 2013  
Client: PennDOT | Total Cost: \$85M  
With Current Firm? Yes**

**Project Role: Engineering Manager**

**Role:** Scott's responsibilities included conceptualizing the design-build MOT plan, and managing the design consultant through the design and approval process. Scott also managed the design consultant to develop design plans and the sequence of work required to maintain and upgrade the existing ITS, ramp meter, traffic signal and interchange lighting systems during construction. He was responsible for identifying and resolving unforeseen conflicts with the ITS system, and for coordination with an ongoing PennDOT ITS contract through the corridor responsible for other aspects of the system. Scott also managed day-to-day operations of the ITS and electrical subcontractor, and coordinated with public utilities as required.

**Project Highlights:** Reconstruction of four miles of six-lane, divided, limited-access highway from the PA Turnpike (SR 276) to the Schuylkill Expressway (I-76). Major quantities of work elements included reconstruction of concrete roadway; reconstruction of 6 ramps and construction of 3 additional ramp termini; rehabilitation of 6 bridges (deck and substructure); sinkhole remediation including drilling and grouting; ITS and Lighting; and 17 sign structures.

**Impact on the Project:** With the design engineer, Scott devised an eight-phase traffic control plan that allowed construction to begin and take place concurrently as design plans for the remaining work were reviewed and effectively performed the work using a design-build approach. Scott was able to devise and implement plan and schedule revisions so as to accommodate multiple major owner-directed changes with minimal delay to the project

**Similarities to I-64 Segment III:** Interstate reconstruction and widening, rehabilitation of six bridge pairs, complex maintenance of traffic, significant ITS system

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

h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment. *Scott will be available and committed to I-64 Segment III to oversee utility coordination throughout design and construction of the project.*

# APPENDIX 3.4.1

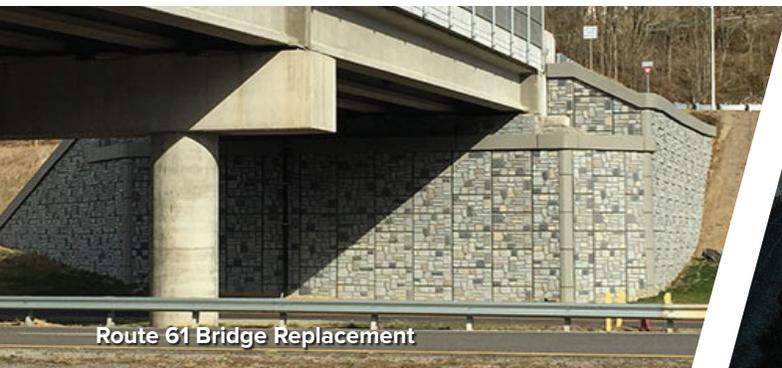
## WORK HISTORY FORMS



I-95/I-695 Interchange



State Street Bridge Reconstruction



Route 61 Bridge Replacement



I-276 Interstate Widening and Reconstruction



**ATTACHMENT 3.4.1(a)**

**LEAD CONTRACTOR - WORK HISTORY FORM**

**(LIMIT 1 PAGE PER PROJECT)**

a. Project Name & Location	b. Name of the prime design consulting firm responsible for the overall project design.	c. Contact information of the Client or Owner and their Project Manager who can verify Firm's responsibilities.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement.(in thousands)
					Original Contract Value	Final or Estimated Contract Value	
Name: <b>I-276 PA Turnpike Widening and Reconstruction</b>  Location: <b>Montgomery County, PA</b>	Name: <b>Urban Engineering</b>	Name of Client / Owner: <b>Pennsylvania Turnpike Commission</b> Phone: <b>610-313-6200</b> Project Manager: <b>Bernard Bydlon, PE</b> Phone: <b>610-313-6200</b> Email: <b>bbydlon@paturndpike.com</b>	<b>11/2008</b>	<b>11/2008</b>	<b>\$158,178</b>	<b>\$173,164</b> Increase due to sinkhole treatments and schedule acceleration incentives.	<b>\$173,164</b>

h. Narrative describing the Work Performed by the Firm identified as the Lead Contractor for this procurement. If the Offeror chooses to submit work completed by an affiliated or subsidiary company of the Lead Contractor, identify the full legal name of the affiliate or subsidiary and the role they will have on this Project, so the relevancy of that work can be considered accordingly. The Work History Form shall include only one singular project. Projects with multiple phases, segments, elements, and/or contracts shall not be considered a single project. If a project listed includes multiple phases, segments, elements, and/or contracts, the SOQ may be rendered non-responsive. In any case, only the first phase, segment, element, and/or contract listed will be evaluated.

**VERIFIABLE EVIDENCE OF GOOD PERFORMANCE**

- The project was awarded the ABC Excellence in Construction Award for Heavy Construction/Infrastructure (2009).
- The project was delivered on-time with an accelerated 30-month schedule through innovative construction sequencing and successful management of unknown subsurface conditions.
- Construction was sequenced to minimize congestion and maintain two-lanes of traffic in each direction.
- Through a value-engineering proposal, reconstruction at the Valley Forge interchange was completed six-months ahead of schedule to improve traffic flow at the toll plaza prior to reconstructing the roadway.
- I-64 Segment III team integration for this project included proposed Lead Utility Coordination Manager Scott Styfco, Deputy Construction Manager Ben Bushey, and Wagman Heavy Civil as a dedicated subcontractor.

**PROJECT DESCRIPTION**



Aerial photo of entire project

The Project was designed to ease congestion and enhance safety on I-276 (the PA Turnpike). This section of roadway is the most heavily traveled portion of the Pennsylvania Turnpike System with over 65,000 vehicles daily. *Similarities to the I-64 Segment III project include: interstate widening and reconstruction, bridge replacements, complex maintenance of traffic, major culvert extensions, retaining and noise walls, geotechnical challenges, and stormwater management improvements.*

**FOUR TO SIX-LANE INTERSTATE WIDENING** – Myers was responsible for the total reconstruction and widening of 5.3 miles of limited access highway from four- to six-lanes, along with the reconstruction of the Valley Forge interchange.

**BRIDGE REPLACEMENTS** – Replacement of five bridge structures was required for this project. Myers provided design alternates for four bridges on this project to implement designs that were safe and cost-effective. Two of the bridges were over railroads and required coordination with two railroad companies - SEPTA and Penn Eastern.

**MAINTENANCE OF TRAFFIC** – The work was completed in four major stages, which included 13 sub-stages. The schedule demands required constructing two stages simultaneously. Myers proposed accelerating interchange reconstruction, which relieved traffic congestion and minimized construction delays. The Myers Team, including MOT Coordinator Scott Styfco, will consider similar innovative alternatives to reduce MOT impacts and maintain traffic flow.

**CULVERT EXTENSIONS** – Three major box culvert extensions were included in the project. A twin 8' x 8' cell box culvert was extended to 15'-11" and 14'-8" built in two stages, and two single-cell culverts has extensions of 18' and 21'-10" and 15'-7" and 33'.

**RETAINING AND NOISE WALLS** – MSE and noise structures which were designed and constructed by Myers included 10 MSE walls, five post-and-panel retaining walls, 11 RSS walls, and six noise walls. Construction of the walls required extensive SOE, which was performed by Wagman as a major subcontractor.

**GEOTECHNICAL CHALLENGES** – Schedule impacts of unknown subsurface conditions were minimized by providing a full-time crew dedicated to geotechnical remediation of subsurface soils. A stable base for the new roadway was provided by undercutting and replacing unsuitable subgrade soils, two feet of material. To limit schedule impacts from sinkhole remediation, Myers sequenced activities to allow adequate repair time, utilized night and double shifts, and set work area limits to make sure sinkhole work was off the critical path.

**STORMWATER MANAGEMENT** – The scope of work also included 360 drainage structures; 36,500 lf of pipe; 4 basins/SWM features.

**COMMUNITY ENGAGEMENT** – Right-of-way access was limited because the Turnpike was being widened without acquiring additional right-of-way. Myers negotiated access agreements with neighboring entities to provide equipment and material access without impacting traffic on the interstate.

**Allan Myers, L.P., an affiliate of Allan Myers VA, Inc., served as the Lead Contractor for this project and will provide management and manpower support for the I-64 Segment III Project. While Allan Myers contracts under different entities in different states for accounting purposes, all entities share resources and report to the same management team. Shared resources of the contracting entities is evidenced by the involvement of proposed key and value-added personnel's in the I-276 PA Turnpike Widening project – specifically Lead Utility Coordination Manager Scott Styfco and Deputy Construction Manager Ben Bushey.**



Maintenance of Traffic on I-276



Night Paving Operations

**ATTACHMENT 3.4.1(a)**

**LEAD CONTRACTOR - WORK HISTORY FORM**

**(LIMIT 1 PAGE PER PROJECT)**

a. Project Name & Location	b. Name of the prime design consulting firm responsible for the overall project design.	c. Contact information of the Client or Owner and their Project Manager who can verify Firm's responsibilities.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement.(in thousands)
					Original Contract Value	Final or Estimated Contract Value	
Name: <b>I-95/I-495/I-295 Interchange, Inner Loop Local and Express at WWB Replacement (Single Contract MB-4)</b> Location: <b>Prince George County, MD</b>	Name: <b>JMT and WR&amp;A Joint-Venture</b> 	Name of Client / Owner: <b>Maryland State Highway Administration</b> Phone: <b>(410)-545-8800</b> Project Manager: <b>Jason Ridgway, PE</b> Phone: <b>(410)-545-8800</b> Email: <b>jridgway@sha.state.md.us</b>	<b>05/2009</b>	<b>11/2009</b> Completion date extended by owner due to added scope	<b>\$93,187</b>	<b>\$105,839</b> Due to owner-directed changes	<b>\$105,839M</b>

h. Narrative describing the Work Performed by the Firm identified as the Lead Contractor for this procurement. If the Offeror chooses to submit work completed by an affiliated or subsidiary company of the Lead Contractor, identify the full legal name of the affiliate or subsidiary and the role they will have on this Project, so the relevancy of that work can be considered accordingly. The Work History Form shall include only one singular project. Projects with multiple phases, segments, elements, and/or contracts shall not be considered a single project. If a project listed includes multiple phases, segments, elements, and/or contracts, the SOQ may be rendered non-responsive. In any case, only the first phase, segment, element, and/or contract listed will be evaluated.

**VERIFIABLE EVIDENCE OF GOOD PERFORMANCE**

- 2010 Award of Excellence, Major Roadway Over \$10 M - MDQI
- 2012 Alliance Award - Northern Virginia Transportation Alliance
- 2011 Award of Excellence, Partnering Bronze Award - Maryland Quality Initiative (MDQI)
- Wagman completed this project ahead of schedule and under budget, exceeded DBE goals and maintained an "A" rating for ESC during construction.
- Environmental- Maintained an "A" Rating for Erosion and Sedimentation controls for entire project.
- During construction, the JMT and WR&A design JV worked with Wagman on a value-engineering proposals redesign the approach to the structure over I-95/I-495 on Rosalie Island using geofoam fill and piling foundations saving the client over \$2M.

**PROJECT DESCRIPTION**

Wagman was the Contractor for the reconstruction of 1.34 miles of I-95/I-495 Inner Loop Local and Express Lanes, 1.21 miles of I-95/I-495 Outer Loop Local and Express Lanes, portions of I-295 northbound and southbound and construction of 11 associated ramps. The project included extensive landscaping, irrigation, signing, lighting and ITS work. Critical coordination with multiple contractors working on either terminus of the project. *Similarities to the I-64 Segment III project include: interstate widening and reconstruction, bridge replacements, complex maintenance of traffic, major culvert extensions, retaining and noise walls, geotechnical challenges, and stormwater management improvements.*

**INTERSTATE WIDENING** – Interstate widening with complicated TMP, 16 bridges, and approximately 140,000 SF of MSE wall.

**BRIDGE REPLACEMENTS** – Constructed 8 bridges which included both curved steel girder and concrete girder bridges.

**MAINTENANCE OF TRAFFIC** – Extensive traffic control was required to reconstruct Mainline I-95/I-495/I-295. Wagman completed multiple major traffic switches to relocate the travelling public to widen the existing interstate and to reconstruct the local and express lanes. Each traffic switch had a contractual milestone date that Wagman met or exceeded for each phase. Temporary bridge (contractor design) installed for haul road access using temporary geosynthetic walls at the abutments for traffic phasing. Required trained, dedicated employees and traffic control resources. Safe, well maintained, and efficient traffic control was the "first contact" with public road users. Executed major traffic switches to rebuild inner and outer loop

**RETAINING AND NOISE WALLS** – 11 retaining walls that included CIP walls, MSE walls and wire walls with a CIP veneer. 440,000 CY roadway excavation. One MSE wall was greater than 25-ft in height to address a major grade separation. A large retaining wall was designed and constructed by Wagman. Settlement and consolidation was an issue so over 561,000 LF of wick drains were installed, geotechnical instrumentation installed and monitored, 5 month waiting period for consolidation and placement of lightweight foam concrete for backfill. 131,500 LF steel piles were driven. 17,000 SF temporary support of excavation installed.

**GEOTECHNICAL CHALLENGES** – Experience allowed for the construction team to be innovative to create safer, more economical solutions. This resulted in reducing project durations and cost. Self-performed piling and other geotechnical elements.

**STORMWATER MANAGEMENT** – 16,800 LF storm drainage and drainage extensions.

**ENVIRONMENTAL** – Erosion & sediment control work was critical with work being performed adjacent to the Potomac River along with environmental sensitivity due to bald eagle nesting area. To access Rosalie Island without impacting the environmentally sensitive Potomac River Basin, Wagman developed an innovative solution; Wagman designed and constructed a "flexi-float" bridge over water & marsh that could support earthmoving equipment.

*Note: Wagman completed five separate contracts for the Woodrow Wilson Memorial Bridge (WWMB) replacement project totaling \$270M.*



View of 295/95 Interchange Bridges



Aerial View of the Completed 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: <b>I-95 Express Toll Lanes Rossville to Campbell Boulevards</b>  Location: <b>Baltimore, MD</b>	Name: <b>URS and RK&amp;K Joint Venture</b>	Name of Client/ Owner: <b>Maryland Transportation Authority (MDTA)</b> Phone: <b>410-537-1000</b> Project Manager: <b>Gradon Tobery</b> Phone: <b>410-931-0808</b> Email: <b>gtobery@I-95GEC.com</b>	<b>10/2010</b>	<b>10/2010</b>	<b>\$52,477</b>	<b>\$53,748</b> <i>Additional work requested by owner</i>	<b>\$53,748</b>

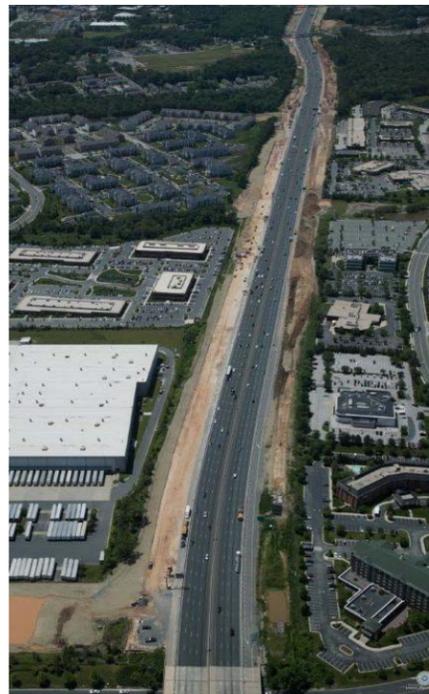
h. Narrative describing the Work Performed by the Firm identified as the Lead Contractor for this procurement. If the Offeror chooses to submit work completed by an affiliated or subsidiary company of the Lead Contractor, identify the full legal name of the affiliate or subsidiary and the role they will have on this Project, so the relevancy of that work can be considered accordingly. The Work History Form shall include only one singular project. Projects with multiple phases, segments, elements, and/or contracts shall not be considered a single project. If a project listed includes multiple phases, segments, elements, and/or contracts, the SOQ may be rendered non-responsive. In any case, only the first phase, segment, element, and/or contract listed will be evaluated.

**VERIFIABLE EVIDENCE OF GOOD PERFORMANCE**

- Construction was completed on-schedule and within budget, despite the high volumes of traffic and challenging weather conditions.
- Received an "A" rating on Environmental Management (from MTA's E&S consultant Greenman-Pederson)
- Received an overall rating of "Very Good" from the GEC Construction Manager (Past Performance Questionnaire – 2014).
- The project had an exemplary safety record with zero lost time injuries.
- I-64 Segment III team integration for this project included proposed DBPM Ed Hilferty and CM Jeff Snow holding similar roles.

*"Allan Myers is always willing to go the extra mile. Immediate response to all issues."  
– Gradon Tobery  
(Past Performance Questionnaire)*

**PROJECT DESCRIPTION**



*Aerial photo of entire project*

I-95 is a heavily traveled interstate throughout the northeast and this project was designed to ease congestion and traffic. The scope of work involved the reconstruction of I-95 for 1.80 miles to the north of the I-695 interchange between Rossville Boulevard and Campbell Boulevard. **Similarities to the I-64 Segment III project include: interstate widening and reconstruction, bridge rehabilitation, complex maintenance of traffic, major culvert extensions, retaining and noise walls, geotechnical challenges, and stormwater management improvements.**

**INTERSTATE WIDENING** – The existing eight-lane divided highway was reconstructed into twelve total lanes – eight general-purpose and four express toll lanes.

**BRIDGE REPLACEMENT/RECONSTRUCTION** – Contingent repairs to the existing MD 43 bridges over I-95 were added to the scope of work to ensure the safety of the traveling public until these were removed by a later project.

**MAINTENANCE OF TRAFFIC** – To minimize traffic delays and enhance safety to the traveling public, particularly during rush hour, an abundant amount of night work was utilized. In addition, safety was increased by eliminating left exits, improving interchanges, and reducing conflict points. Four-lanes of traffic were maintained in each direction during construction through this congested corridor while widening to the outside of the existing NB and SB roadways. Once the new outside lanes were completed, traffic was placed on these lanes and the middle of I-95 was reconstructed.

**CULVERT EXTENSIONS** – Phased replacement of a deteriorating large diameter structural plate pipe arch culvert with a pre-cast concrete arch culvert was an environmentally sensitive critical path item. This culvert ran under the entire width of I-95. The stream in this area was subject to flow fluctuations during storm events and had to be flumed directly through the work area. Myers implemented an innovative stream diversion/support of excavation scheme.

**RETAINING AND NOISE WALLS** – Two retaining walls were constructed in a top-down fashion and were 482' long and 256' long. H-piles were embedded in 36" diameter caissons and installed at 8' spacing. Timber lagging was utilized and a 10" thick reinforced concrete wall was cast-in-place in front of the H-piles.

**GEOTECHNICAL CHALLENGES** – The geotechnical conditions and challenges included undercutting and stream flooding during storms and periods of rain. Myers proposed a change in foundation design due to the subsurface conditions on the project, and MTA approved the use of H-piles instead of caissons which expedited construction and provided a more stable construction process due to inclement weather and regular stream flooding.

**STORMWATER MANAGEMENT** – The project included new storm drain improvements, stormwater management, and wetland mitigation facilities. Major erosion and sediment control measures were required due to close proximity to the Chesapeake Bay. Stormwater management included the installation of permanent ponds with required access roads, gates, and service areas.

**Allan Myers MD, Inc., an affiliate of Allan Myers Inc., served as the Lead Contractor for this project and will provide management and manpower support for the I-64 Segment III Project. While Allan Myers contracts under different entities in different states for accounting purposes, all entities share resources and report to the same management team. Shared resources of the contracting entities is evidenced by the involvement of proposed key personnel in the I-95 ETLs project – specifically DBPM Ed Hilferty and CM Jeff Snow.**



*Maintenance of traffic on I-95*



*Shoring for phased culvert reconstruction under I-95*

**ATTACHMENT 3.4.1(b)**

**LEAD DESIGNER – WORK HISTORY FORM**

**(LIMIT 1 PAGE PER PROJECT)**

a. Project Name & Location	b. Name of the prime/ general contractor responsible for overall construction of the project.	c. Contact information of the Client and their Project Manager who can verify Firm’s responsibilities.	d. Construction Contract Start Date	e. Construction Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement.(in thousands)
					Construction Contract Value (Original)	Construction Contract Value (Actual or Estimated)	
Name: <b>I-95/I-495/I-295 Interchange Reconstruction for Woodrow Wilson Bridge Replacement</b> Location: <b>Prince George’s County, MD</b>	Name: <b>Wagman (Responsible 3 of 4 Contracts – Totaling \$195M); John Driggs Company (\$9.8M)</b> 	Name of Client: <b>Maryland State Highway Administration (MSHA)</b> Phone: <b>410.545.8838</b> Project Manager: <b>Mr. Eric Marabello</b> Phone: <b>410.545.8770</b> Email: <b>emarabello@sha.state.md.us</b>	<b>05/2001</b>	<b>11/2009</b> Adjusted by Owner for Requested Change in Scope	<b>\$190,400</b>	<b>\$205,400</b> Owner Requested Change in Scope	<b>\$6,369</b>

h. Narrative describing the Work Performed by the Firm identified as the Lead Designer for this procurement. Include the office location(s) where the design work was performed and whether the firm was the prime designer or a subconsultant. The Work History Form shall include only one singular project. Projects with multiple phases, segments, elements, and/or contracts shall not be considered a single project. If a project listed includes multiple phases, segments, elements, and/or contracts, the SOQ may be rendered non-responsive. In any case, only the first phase, segment, element, and/or contract listed will be evaluated.

**VERIFIABLE EVIDENCE OF GOOD PERFORMANCE**

- The JV Team of WRA and JMT developed a project QA/QC Plan to ensure the overall quality of project submittals and quality of design resulting in the project remaining on budget.
- The design of the project minimized the number of shifts in traffic and placement of structural elements over traffic to the greatest extent possible to reduce congestion during construction.
- The project received multiple awards including: 2007 Outstanding Project in the Transportation Category, ACEC/MD and the 2007 Award of Merit, ACEC/MD
- Owner requested changes during construction required partnering between SHA, WRA/JMT, and Wagman to cost-effectively implement changes to the schedule and minimize impacts.
- Formal partnering of entire Woodrow Wilson Bridge projects resulted in effective TMP Plan for the I95/I-495 corridor.
- I-64 Segment III team integration for this project included proposed Geotechnical Lead Jeff Basford, PE and Bridge Lead Jeremy Schlusell, PE.

**PROJECT DESCRIPTION**

The project included widening and reconstruction of I-95/I-495 (1.3 miles) to accommodate six highway lanes in each direction in an express/local configuration from WWB to the MD 210 Interchange. Reconstruction and widening of I-295 (0.6 miles) to the District of Columbia line. **WRA ROLE** – Whitman, Requardt & Associates, LLP (WRA) in joint-venture with JMT performed comprehensive preliminary and final design engineering services of a new \$205 million interstate interchange in conjunction with the \$1B Woodrow Wilson Bridge (WWB) replacement project and the \$1B development of National Harbor. The project design was led by our Baltimore, Maryland office.

**ROADWAY RECONSTRUCTION** – Existing I-95/I-495 eight-lane roadway was completely reconstructed to a twelve-lane two-way roadway consisting of a four-lane local roadway and two-lane express roadway in each direction. Each of the six-lane section connected to one of the two new WWB structures. The local roadways provided connections to I-295 to the north, National Harbor complex to the south, and MD 210 to the east. The roadway alignments were designed to maintain six lanes of through traffic at all times and maintain connections to I-295 and MD 210.

**MAINTENANCE OF TRAFFIC** – Extensive multi-phase maintenance of traffic plans were required to maintain traffic along the I-95/I-495 and I-295 corridor. Maintaining access to interchange ramps was a priority to minimize detouring of traffic. The project was divided into four major construction projects. Each project was in succession so as the new WWB was completed, the adjoining roadway project was completed and ready to accept traffic. WRA took a lead role in coordinating the multiple project phasing to ensure congestion along I-95/I-495 was minimized during construction.

**TRAFFIC CONTROL DEVICES** – Traffic engineering services included the design of complete new interchange signing, roadway lighting, ITS, pavement marking. Coordination with VDOT was required to maintain ITS devices through the entire Woodrow Wilson Bridge reconstruction.

**INTERCHANGE RECONSTRUCTION** – The existing I-295/I-495/I-95 interchange was reconstructed in its entirety to accommodate the reconstructed I-495/I-95 roadways. Ramp connections from the local roadway network were provided to I-295, future National Harbor Development, and MD 210. Ramp connections were provided from express lanes to MD 210 and the design incorporated a future express connection to I-295. Also, ramp connections were provided from I-295 to I-95/I-495 local lanes and MD 210. The project incorporated all movements from I-95/I-495 and I-295 to the National Harbor development, south of the project.

**BRIDGE DESIGN** – The I-95/I-495/I-295 interchange included eight I-95 mainline bridges, sixteen ramp bridges, three pedestrian trail bridges and thirty-one permanent retaining walls. The bridges included multi-span continuous curved steel girder bridges, multi-span continuous straight steel girder bridges, and single-span pre-stressed concrete girder bridges. The Ramp E Flyover Bridge was a two-lane, over 1,400-foot long curved girder bridge with spur Ramp R and associated gore area on the bridge connecting southbound I-295 to the I-495 Outer Beltway. The bridge included the design of three integral pier caps including two over I-495, which required extensive coordination with maintenance of traffic for the installation of the steel girders and integral pier caps. The retaining walls consisted of both conventional and mechanically stabilized earth type retaining walls.

**HYDRAULIC ANALYSIS, STORMWATER MANAGEMENT, EROSION AND SEDIMENT CONTROL** – A complete new open storm drain system was designed to convey roadway drainage to stormwater management facilities located in ramp loops and ramp gores prior to outfalling into the Potomac River. The existing drainage system was required to be maintained in operation until portion of the new system were complete. A multi-phased ESC plan was required to implement erosion control measures to prevent sediment from being discharged into the environmental sensitive Smoot’s Cove of the Potomac River.

**GEOTECHNICAL DESIGN** – A detailed geotechnical analysis was required at the WWB approach to determine the depth of expected soils consolidation and methods to expedite the consolidation process. WRA’s innovative geotechnical design utilized lightweight fill, consisting of lightweight foamed concrete fill, in areas where the time required for settlement would negatively impact the overall project schedule. Lightweight foamed concrete fill also minimized the lateral earth pressure on the WWB Abutment, which aided in the foundation design. Foundation design was performed for bridge structures as well as temporary and permanent retaining walls.

**UTILITY RELOCATION DESIGN AND COORDINATION** – New electrical feeds to lighting and ITS controller and distribution cabinets, fiber optic relocation, and sleeves for future sanitary sewer.

**PUBLIC INVOLVEMENT** – Provided support for owner during design and the contractor during construction to resolve public environmental concerns on this highly publicized project. The project required close coordination with VDOT, DCDOT and local agencies to notify the motoring public when a temporary roadway closure was required to remove existing overhead structures or installing structural steel elements for the complex bridges.



*I-95/I-495/I-295 Interchange*

**ATTACHMENT 3.4.1(b)**

**LEAD DESIGNER – WORK HISTORY FORM**

**(LIMIT 1 PAGE PER PROJECT)**

a. Project Name & Location	b. Name of the prime/ general contractor responsible for overall construction of the project.	c. Contact information of the Client and their Project Manager who can verify Firm’s responsibilities.	d. Construction Contract Start Date	e. Construction Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement.(in thousands)
					Construction Contract Value (Original)	Construction Contract Value (Actual or Estimated)	
Name: <b>I-81 BRIDGES OVER BUFFALO CREEK AND MAURY RIVER – VDOT CONTRACT NO. 99LD299</b> Location: <b>ROCKBRIDGE COUNTY, VA</b>	Name: <b>BUFFALO FAIRFIELDS ECHOLS, INC. (FAIRFIELD SKANSKA, INC.) MAURY ORDERS CONSTRUCTION COMPANY</b>	Name of Client: <b>VDOT</b> Phone: <b>540-332-7724</b> Project Manager: <b>WAYNE NOLDE</b> Phone: <b>540-332-7724</b> Email: <b>WAYNE.NOLDE@VDOT.VIRGINIA.GOV</b>	<b>BUFFALO 08/2004</b>  <b>MAURY 02/2004</b>	<b>BUFFALO 07/2007</b>  <b>MAURY 11/2006</b>	<b>BUFFALO \$27,151</b>  <b>MAURY \$17,736</b>	<b>BUFFALO \$27,073</b>  <b>MAURY \$18,184</b>	<b>\$2,221</b>

h. Narrative describing the Work Performed by the Firm identified as the Lead Designer for this procurement. Include the office location(s) where the design work was performed and whether the firm was the prime designer or a subconsultant. The Work History Form shall include only one singular project. Projects with multiple phases, segments, elements, and/or contracts shall not be considered a single project. If a project listed includes multiple phases, segments, elements, and/or contracts, the SOQ may be rendered non-responsive. In any case, only the first phase, segment, element, and/or contract listed will be evaluated.

**VERIFIABLE EVIDENCE OF GOOD PERFORMANCE**

- Buffalo Creek was awarded the VDOT Virginia Statewide Construction Quality Award, NPHQ Award “Breaking the Mold” and the ACEC Grand Award for Design Excellence.
- Maury River was awarded the ACEC Grand Award for Design Excellence.
- Innovative bridge and abutment designs reduced future maintenance costs.
- WRA QA/QC efforts during design allowed the project to maintain the project schedule and resulted in less than 1% in change orders during construction.
- The design utilized an eight-foot high temporary wire MSE retaining walls to support a change in grade while maintaining two lanes of traffic, which significantly reduced the earthwork for the project.
- I-64 Segment III team integration for this project included proposed Design Manager John Maddox, PE, Bridge Lead Jeremy Schluskel, PE, Geotechnical Lead Jeff Basford, PE, Design QA/QC Manager Mark Vasco, PE, and Drainage/H&HA Lead Dave Gertz, PE.

**PROJECT DESCRIPTION**

**WRA’S ROLE** – WRA was the prime designer for the I-81 bridge replacement projects for both the Buffalo Creek and Maury River bridges under a single design contract No. 99LD299. WRA completed approximately 90% of the design from our Virginia offices. The existing bridges had reduced shoulder width and were classified as functional obsolete. The projects were to be the first part of the I-81 reconstruction efforts and were designed to widen I-81 from four- to six-lanes.

**ROADWAY DESIGN** – Each bridge required the total 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 median to maintain two travel-lanes at all times in order to minimize congestion during construction.

**HYDRAULIC ANALYSIS** – The project required a detailed hydraulic analysis of both Buffalo Creek and 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. The project design needed to carefully consider the karst geologic features along the corridor. Five stormwater management facilities were designed for the projects and all existing CM drainage pipes were replaced, requiring the boring and jacking of several pipes. The projects also included the design of the extension of three box culverts.

**GEOTECHNICAL ENGINEERING** – WRA provided all geotechnical engineering services for the projects, 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. WRA 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 are three-lanes wide and were on independent alignments and grading with approximately 1,000’ 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 8 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 feet in height due to the depth of the gorge.

The Maury River bridges are three-lanes wide. 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. Both the Buffalo Creek and 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 the detail in the Design Guidelines as a joint detail. This innovative design solution eliminates deck joints on the bridge, significantly reducing future maintenance costs and impacts to traffic operations on I-81 for future repairs to the deck joints.

**MAINTENANCE OF TRAFFIC** – The sequence of construction and MOT 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. 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.



*I-81 over Maury River*



*I-81 over Buffalo Creek*

**ATTACHMENT 3.4.1(b)**

**LEAD DESIGNER – WORK HISTORY FORM**

**(LIMIT 1 PAGE PER PROJECT)**

a. Project Name & Location	b. Name of the prime/ general contractor responsible for overall construction of the project.	c. Contact information of the Client and their Project Manager who can verify Firm’s responsibilities.	d. Construction Contract Start Date	e. Construction Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement.(in thousands)
					Construction Contract Value (Original)	Construction Contract Value (Actual or Estimated)	
Name: <b>MD 210 Interchange at Kerby Hill Road/Livingston Road Design-Build</b> Location: <b>Prince George’s County, Maryland</b>	Name: <b>Concrete General</b>	Name of Client: <b>Maryland State Highway Administration</b> Phone: <b>410-545-0379</b> Project Manager: <b>Mr. Jason Stolicny</b> Phone: <b>410-545-0379</b> Email: <b>jstolicny@sha.state.md.us</b>	<b>08/2015</b>	<b>08/2019</b> <i>Adjusted by owner for right-of-way acquisition</i>	<b>\$82,600</b>	<b>\$82,600</b>	<b>\$4,500</b>

h. Narrative describing the Work Performed by the Firm identified as the Lead Designer for this procurement. Include the office location(s) where the design work was performed and whether the firm was the prime designer or a subconsultant. The Work History Form shall include only one singular project. Projects with multiple phases, segments, elements, and/or contracts shall not be considered a single project. If a project listed includes multiple phases, segments, elements, and/or contracts, the SOQ may be rendered non-responsive. In any case, only the first phase, segment, element, and/or contract listed will be evaluated.

**VERIFIABLE EVIDENCE OF GOOD PERFORMANCE**

- WRA developed a Design Quality Control Plan to ensure the overall quality of design and provide design submittals that met or exceeded the RFP requirements.
- The DB team meet with utility companies and utility designers regularly during design and relocation to resolve issues and conflicts.
- An advanced pavement patch program was performed to rehabilitate select deteriorated pavement prior to the actual scheduled work.
- Public outreach program extended from a project-wide stakeholder meetings to individual community groups.
- Partnering meetings with the owner, the contractor and WRA are expediting critical issues to maintain the schedule critical project.

**PROJECT DESCRIPTION**

**WRA ROLE** – WRA is the Lead Design firm for the MD 210 at Kerby Hill/Livingston Road Design-Build project. The WRA Baltimore office is completing the final construction documents in May 2017. The project reconstructs MD 210 and provides a grade-separated interchange of MD 210 with Kerby Hill Road/Livingston Road. SHA had identified MD 210 (Oxon Hill Road) from I-95/I-495 (Capital Beltway) to MD 228 (south of Kerby Hill Road/Livingston Road) as a highly congested corridor and proposed overpasses at each main signalized intersection. The interchange at Kerby Hill Road/Livingston Road is the first of several projects to relieve traffic congestion.

**ROADWAY DESIGN** – The project converts MD 210 to an urban freeway with projected traffic volumes of 102,000 ADT in 2035. The project improves 1.9 miles of MD 210 to a six-lane urban freeway. The Kirby Hill Road/Livingston Road innovative interchange incorporates median ramps in lieu of the standard outer ramps. Kirby Hill Road/Livingston Road were reconstructed and elevated over MD 210 and the project provides service roads along MD 210.

**HYDRAULIC ANALYSIS** – The project required the hydrology/hydraulics analysis for the proposed bridge over Carey Branch including stream assessment and relocation analysis and design. The design included developing an innovative SWM plan to contain the various and SWM facilities within the constrained right-of-way. SWM design included a total of five bio-swales, three wet-swales, two submerged wetlands, and ten micro-bioretenion facilities for quality and quantity control facilities. The project also require major culvert extensions requiring a full hydraulic analysis.

**GEOTECHNICAL ENGINEERING** – WRA provided geotechnical design for all roadway and structural elements of the project including foundation design for box culvert extensions, retaining walls, bridges, and noise walls, sign, embankments with reinforced soil slopes to minimize right of way impacts and analysis of undercut and pavement design.

**STRUCTURAL DESIGN** – The design includes two new bridges over MD 210, (136 ft. long two span and 111 ft. single span, both bridges have complex geometry to accommodate the signalized intersection) and a new bridge over Carey Branch 74 ft. long single span. The ramps in the median are supported on MSE retaining walls requiring a detailed analysis of constructability within a narrow median. The extension of the box culverts require special design details to account for settlement due to the poor soil conditions at the project site.

**TRAFFIC ENGINEERING** – A complex TMP with multiple phases of construction minimizes impacts to traffic operation during construction with a major focus on construction access within the median of MD 210. The extensive MOT includes temporary roadway connections utilizing proposed service roads to maintain access to Livingston Road and Kerby Hill Road from/to MD 210. The plans were developed to allow the main signalized intersection to remain operational as long as possible to minimize the duration of detours for the turning movements affected during subsequent construction phases. The project includes new signing, new traffic signal at the intersection of the MD 210 median ramps, pavement markings, ITS facilities and interchange and intersection lighting.

**UTILITY RELOCATION** – The project requires the relocation of electrical, communication, cable and fiber optic being design and relocated by utility owners and the relocation of water, sanitary sewer and gas (7,300 LF of 12” high pressure gas main) performed by the Design-Build team. A key component of the project was to coordinate and relocate existing utilities prior to and concurrent with construction. Monthly utility coordination meetings with utility owners, SHA and the DB team are a priority to coordinate the proposed utility relocations with the roadway design and construction. Conflicts between the proposed utility design and the roadway design were identified early and changes to the design implemented quickly to avoid potential impacts to the project schedule and cost. The Design-Build team worked with the utility relocation personnel to prioritize relocations, which benefitted the utility owner and the construction schedule.

**PUBLIC INVOLVEMENT AND STAKEHOLDER COORDINATION** - Public outreach for the MD 210 project includes a formal public meeting, and attendance and presentations at several community associations. The major stakeholders are public transit with Prince George’s County and WMATA. WRA developed a plan to accommodate bus routes during construction, including temporary bus stops, to ensure that all users retain access to transit on this heavily utilized transit corridor.



*Proposed Interchange MD 210 Northbound View*



*Proposed Interchange MD 210 Southbound View*



301 CONCOURSE BLVD.  
SUITE 300,  
GLEN ALLEN, VA 23059  
804.290.8500



9030 STONY POINT PARKWAY  
SUITE 220  
RICHMOND, VA 23235  
804.272.8700