

ELECTRONIC SUBMISSION



STATEMENT OF QUALIFICATIONS | A DESIGN-BUILD PROJECT

I-81 WIDENING MM 136.6 TO MM 141.8

ROANOKE COUNTY AND CITY OF SALEM, VIRGINIA

State Project No.: 0081-080-946, P101, R201, C501, B677, B678,
B681, B682, B683, B684, B685, B686, B687, B688
Federal Project No.: NHPP-0812 (323)
Contract ID Number: C00116203DB108



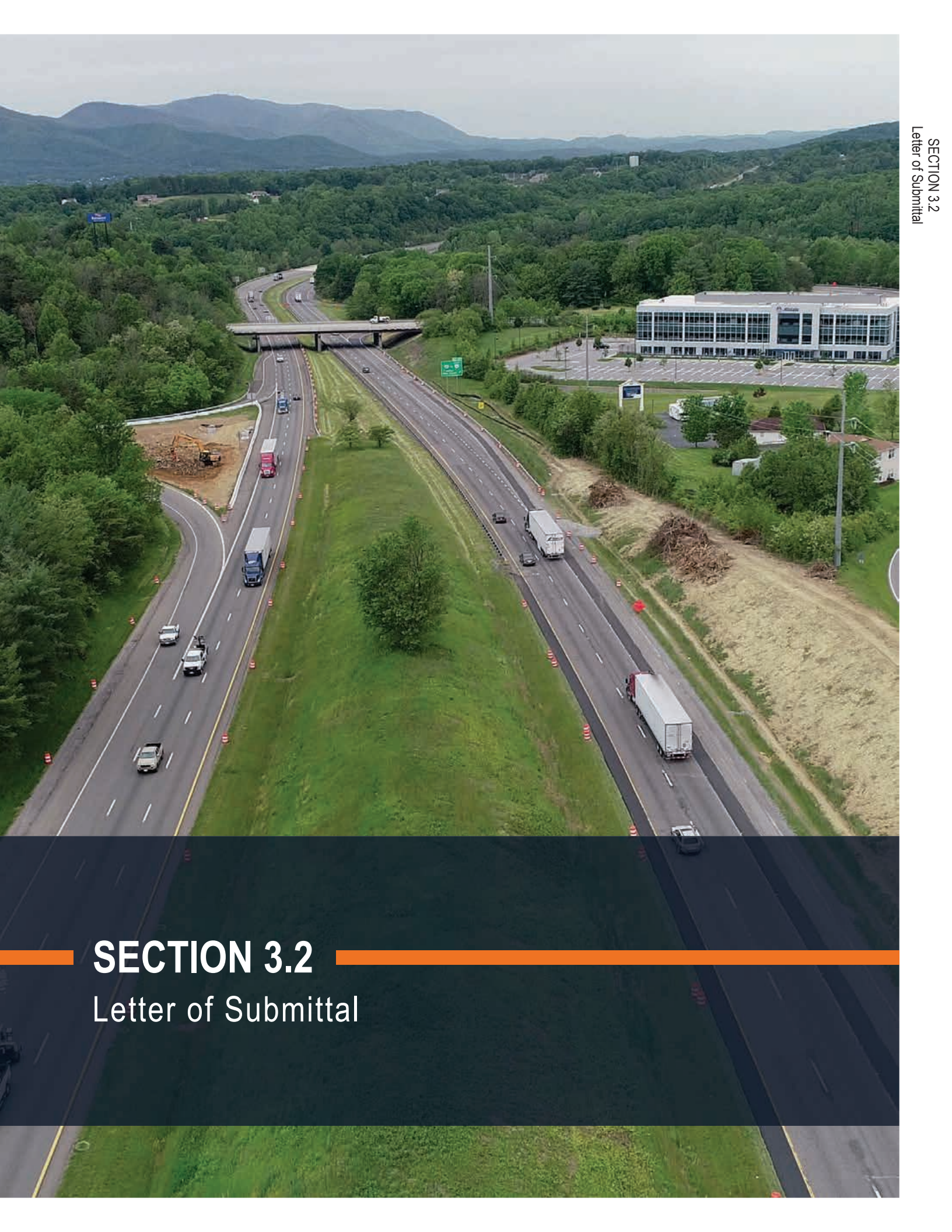
JULY 8, 2020



Joint Venture

in association with Lead Designer





SECTION 3.2

Letter of Submittal

July 8, 2020

Bryan Stevenson, PE, DBIA
Alternative Project Delivery Section
Virginia Department of Transportation (VDOT)
1401 E. Broad Street
Richmond, Virginia 23219



Re: A Design-Build Project | I-81 Widening MM 136.6 to MM 141.8 | State Project No. 0081-080-946, P101, R201, C501, B677, B678, B681, B682, B683, B684, B685, B686, B687, B688 | Federal Project No.: NHPP-0812 (323) | Contract ID Number: C00116203DB108

Dear Mr. Stevenson:

The Branch-ORDERS Joint Venture Team (Branch-ORDERS or the Team) is pleased to submit its Statement of Qualifications (SOQ) to the Virginia Department of Transportation (VDOT) for the design and construction of the I-81 Widening MM 136.6 to MM 141.8 (the I-81 Project, or Project). The Joint Venture (JV) of **Branch Civil, Inc.** (Branch) and **ORDERS Construction, Inc.** (ORDERS) will be the Lead Contractor for this Project and **Whitman Requardt & Associates, LLP** (WRA) will be the Lead Designer. Our Team offers the right combination of recognized industry leaders with extensive local experience and knowledge, dedicated resources ready to address critical project elements, and successful design-build (D-B) experience in highway and bridge projects similar to the I-81 Project.

3.2.1 & 3.2.2 Authorized Representative and Offeror's Point of Contact Information | Donald E. Bryson, Jr. is the Point of Contact for the Team and should be contacted for all matters associated with this submission:

Address: 442 Rutherford Avenue, NE | Roanoke, VA 24016

Phone: 704.572.1684 | **Fax:** 540.982.4216 | **Email:** donald.bryson@branchcivil.com

3.2.3 Principal Officer Information | Jason Hoyle, Vice President at Branch, is the Principal Officer for our Team.

Address: 442 Rutherford Avenue, NE | Roanoke, VA 24016

Phone: 540.982.1678 | **Fax:** 540.982.4216 | **Email:** jason.hoyle@branchcivil.com

3.2.4 Offeror's Corporate Structure | The Branch-ORDERS JV will be the legal entity, will have financial responsibility for the Project, and will have joint and several liability for the performance of the work. There are no liability limitations, and the Branch-ORDERS JV will provide single 100% performance and payment bonds.

3.2.5 Identity of Lead Contractor and Lead Designer | The Lead Contractor for the Project will be the Branch-ORDERS JV, and the Lead Designer will be Whitman, Requardt and Associates, LLP.

3.2.6 Affiliated/Subsidiary Companies | The full legal names and addresses of all affiliated and/or subsidiary companies of the Offeror are provided in Appendix 3.2.6.

3.2.7 Debarment Forms | Signed Certification Regarding Debarment Forms for Primary and Lower Tiered Covered Transactions are provided as in Appendix 3.2.7.

3.2.8 Offeror's Prequalification Evidence | Evidence of VDOT's Prequalification (#JV097) is provided in Appendix 3.2.8, as well as a copy of our JV Bidding Agreement.

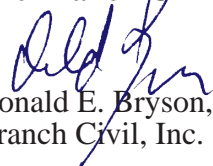
3.2.9 Evidence of Obtaining Bonding | A Surety Letter from our bonding company is included Appendix 3.2.9, confirming their willingness to provide all bonds for this Project.

3.2.10 Virginia State Corporation Commission (SCC)/Department of Professional and Occupational Regulations (DPOR) Documentation | Appendix 3.2.10 includes SCC and DPOR registrations for all business entities. The Offeror and all Team members are eligible at the time of the SOQ submittal, under the law and relevant regulations, to offer and provide any services proposed or related to this Project.

3.2.11 Disadvantaged Business Enterprise (DBE) Statement | Our Team is committed to achieving the nine percent (9%) DBE participation goal for the Project.

Our team brings experience, innovation, quality, and attention to detail in every aspect of project delivery. We also offer the resources and commitment necessary to achieve project success with VDOT. On behalf of our Team, we thank VDOT for the opportunity to submit this SOQ. We look forward to partnering with VDOT to deliver another successful project.

Respectfully Submitted,
The Branch-ORDERS Joint Venture


Donald E. Bryson, Jr., Pursuit Manager
Branch Civil, Inc.



SECTION 3.3

Offeror's Team Structure

3.3 OFFEROR'S TEAM STRUCTURE

The Branch-ORDERS Team delivers an unequaled Team of design and construction experts with extensive experience in design-build (D-B) infrastructure projects. We have a long history of completing successful D-B projects for VDOT. This success is due in large part to the selection of personnel and team members, each with strengths that address critical project risks.

The Branch-ORDERS Team, with more than 208 collective years of D-B experience, is committing Key Personnel to address these challenges. This experience facilitates the development of a thorough understanding of each other's capabilities, enabling us to manage each discipline and reduce project risk efficiently. Further, we bring additional D-B strength to the Project through our partners and specialty firms.

We have strategically assembled a Team with extensive experience in the I-81 corridor. We deliver VDOT and the residents of Salem and Roanoke County a truly local team with vast resources and knowledge of the Project's needs. This structure includes a Construction Joint Venture (JV) with recent and relevant experience building similar projects along I-81, as well as a design team with exclusive knowledge of the I-81 corridor. In addition to this experience best qualifying our Team for this Project, our success is further exemplified by the awards we have received, including those shown in [EXHIBIT 3.3-1](#). Furthermore, our vast experience in the I-81 corridor is demonstrated in [EXHIBIT 3.3-2](#) on the next page. This experience and knowledge will allow the delivery of a final Project that exceeds VDOT's expectations.

Our Team has developed a rapport and knowledge of each other's abilities, skills, and work style, which is vital to the success of this Project. Our Team's approach to constructing this Project relies on critical elements that will ensure a successful project delivery: precise planning, experienced/consistent staff from procurement to completion, dedicated resources, and seamless project execution. Below are brief introductions of our primary team members, as well as our subconsultants.

BRANCH CIVIL, INC.

Offeror, Legal Entity, Construction JV Partner


 **BRANCH CIVIL** Branch has a 75-year tradition of building enduring infrastructure projects in Virginia as well as throughout the Mid-Atlantic and Southeastern US through D-B delivery. As an employee-owned company, Branch is headquartered in Roanoke and has Virginia offices in Richmond, Virginia Beach, and Manassas, as well as an office in Morrisville, North Carolina, where they've constructed projects since 2005. As one of the largest Virginia-based contractors, Branch's experience includes successful D-B, Public-Private Transportation Act (PPTA), and

EXHIBIT 3.3-1 | Team Awards

Our Team's history of designing and constructing successful projects is demonstrated by the awards we've received.



BRANCH CIVIL, INC.

- 2020 Infrastructure Award, \$15M & Above, Heavy Construction Contractors Association
- 2019 Award for Safety Excellence, Carolinas AGC
- 2017 Transportation Project of the Year, APWA (Mid-Atlantic Chapter)
- 2016 Contractor Safety Award - 250,000 to 500,000 Man Hours, VTCA
- 2012 Alliant Build America Award - Design-Build Highway & Transportation, AGC of America
- 2011 President's Award for Highways, AASHTO

ORDERS CONSTRUCTION COMPANY

- 2018 Engineering Excellence Merit Award, ACEC Virginia
- 2018 Contractor Safety Award - Category Winner, 100,000 Man Hours, VTCA
- 2016 & 2017 Contractor Safety Award - Category Winner, 100,000 to 250,000 Man Hours, VTCA
- 2016 John L. Martin Partnered Project of the Year, International Partnering Institute

WHITMAN, REQUARDT AND ASSOCIATES, LLP

- 40+ awards in the Last Five Years and 65+ in the last Ten
- 2019 Engineering Excellence Award, ACEC
- 2019 Project of the Year, APWA (Mid-Atlantic Chapter)
- 2017 Project of the Year, VTCA
- 2016 Mid-Atlantic Design Firm of the Year, ENR

Design-Bid-Build (D-B-B) projects across the Commonwealth of Virginia.

Branch has successfully delivered more than 17 D-B contracts totaling more than \$650M throughout the Southeast and mid-Atlantic. Branch will apply best practices and valuable experience to deliver results similar to those achieved on the I-95 Southern Terminus Extension (STE) D-B project in Stafford County, VA. This project, with WRA as the Lead Designer, was delivered nine months ahead of the contract completion date and on budget. Additionally, Branch has successfully executed other similar projects, including the I-64 Widening Exit 200 to 205 D-B in the Richmond District (with WRA as the Lead Designer), which was completed early, receiving the full early completion incentive from VDOT.

ORDERS CONSTRUCTION COMPANY, INC.

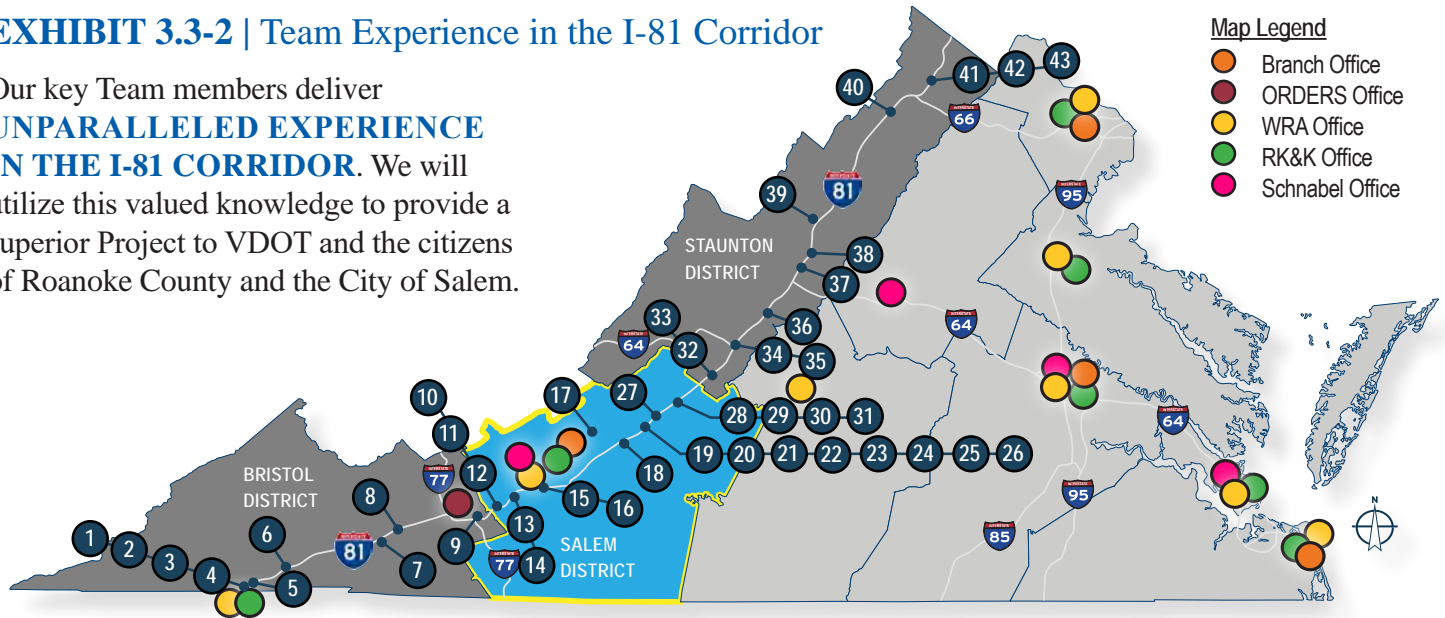
Offeror, Legal Entity, Construction JV Partner



ORDERS CONSTRUCTION COMPANY ORDERS is a family-owned business currently managed by third and fourth generation highway contractors and Registered Professional Engineers. With their family name and reputation on the line, ORDERS' commitment to delivering unmatched and quality projects goes all the way to the top of the organization. This dedication to excellence makes their firm a contractor of choice. Their company has

EXHIBIT 3.3-2 | Team Experience in the I-81 Corridor

Our key Team members deliver **UNPARALLELED EXPERIENCE IN THE I-81 CORRIDOR**. We will utilize this valued knowledge to provide a superior Project to VDOT and the citizens of Roanoke County and the City of Salem.



PROJECT KEY

- | | | |
|--|--|--|
| <ol style="list-style-type: none"> 1. Exit 7 Bridge Replacement & Off Ramp D-B-B (ORDERS) 2. Exit 10 Bridge Replacement & Off Ramp D-B-B (ORDERS) 3. I-81 Halls Bottom Bridge Replacement D-B (WRA & ORDERS) 4. I-81 MM 8.1-9.7 Southbound Widening (WRA) 5. Exit 14 Interchange Reconstruction, Town of Abingdon and Washington County (RK&K & WRA) 6. I-81 Truck Climbing Lane QA/QC Reviews at MM 32.4-33.5 NB, 39.5-40.6 NB & 34-33 SB (WRA) 7. Mulberry Lane Bridge Replacement & Widening MM 51 D-B-B (ORDERS) 8. Atkins Bridge Replacement MM 53 D-B-B (WRA & ORDERS) 9. Reed Creek Bridge Replacement & Widening MM 83 D-B-B (ORDERS) 10. 1998 Study Salem District, Wythe, Pulaski & Montgomery Counties MM 83-116 (WRA) 11. Exit 105 to Exit 109 Truck Lane Restriction Feasibility Evaluation MM 105-109 (RK&K) 12. Exit 105 Improvements and New River Bridge Replacement (WRA & RK&K) 13. Exit 109 Reconstruction D-B-B (Branch) | <ol style="list-style-type: none"> 14. Exit 109 Safety Operations Study and Concept Plan (RK&K) 15. Exit 118 Park and Ride (WRA) 16. Exit 118C Safety Operations Study and Concept Plan (RK&K) 17. Southgate Drive Interchange Improvements D-B-B (Branch) 18. GIS Locating and Visual Condition Inspection of Drainage Structures MM 138-141 (RK&K) 19. Exit 140 Park and Ride (WRA) 20. Exit 141 to 143 Widening D-B-B (Branch) 21. Superelevation Correction and Shoulder Improvement Design MM 141-143 (WRA) 22. Exit 143 to Exit 150 Route 11 Signal Optimization (RK&K) 23. MOT Design for Bridges over Tinker Creek & Norfolk Southern Railway (RK&K) 24. Exit 150 Safety and Operations Study, Botetourt County (RK&K) 25. MOT Design for Bridges over US 220 (RK&K) 26. Exit 150 Improvement D-B-B (Branch) 27. GIS Locating & Visual Condition Inspection of Drainage Structures (RK&K) 28. MOT Design for Bridges over Route 625 MM 164.8 (RK&K) | <ol style="list-style-type: none"> 29. MOT Design for Bridges over the James River MM 165 (RK&K) 30. MOT Design for Bridge over Route 43/ CSX Railway MM 165.2 (RK&K) 31. Mainline Safety Improvement MM 167.5-169.5 (RK&K) 32. Bridge over Buffalo Creek MM 183-184.5 (WRA) 33. Buffalo Creek Bridges and Climbing Lane CEI MM 183-184.5 (RK&K) 34. Bridge over Maury River D-B-B (ORDERS, WRA) 35. Bridge over Maury River CEI (RK&K) 36. Truck Climbing Lanes CEI (RK&K) 37. Permanent Variable Message Signs Installed at Various Locations (RK&K) 38. Various Asphalt Plant Mix Schedules CEI Services (RK&K) 39. Exit 243 Interchange Reconstruction Improvements MM 240-245 (RK&K) 40. 1998 Study Shenandoah & Frederick Counties MM 264-305 (WRA) 41. Environ. Document Exit 307 (WRA) 42. Exit 313 Study for Interchange Improvements, Alternate Designs (WRA, RK&K) 43. Route 17 Interchange Ramps Improvements CEI Services (RK&K) |
|--|--|--|

completed numerous projects similar in size and scope to the I-81 Project, which is reflected in a completed works portfolio totaling more than \$1B.

In addition to traditional bridge experience, ORDERS has an extensive portfolio of D-B projects completed for satisfied owners. Their management team believes that the D-B process allows the company to showcase our strengths with a multitude of intangible qualifications not considered on more traditional low-bid projects. ORDERS excels at building projects with minimal owner oversight.

WHITMAN, REQUARDT & ASSOCIATES, LLP Lead Designer

WRA is a full service architectural and engineering firm that was founded over 105 years ago, primarily serving federal, state, and local government entities in the mid-Atlantic region. During the last eight years, WRA has worked on 16 D-B projects in Virginia, valued at more than \$280M. A D-B leader in the mid-Atlantic region, WRA has delivered more than 50 D-B projects for federal, state, and local government entities, as well as for private clients.

WRA has a highly established relationship with Branch, ORDERS, and RK&K. They worked with Branch to complete the design on I-95 STE, I-64 Widening Exits 200 to 205, and I-95 Safety Improvements D-B Projects. They also worked with ORDERS on two recent D-B projects on I-81 in the Bristol District. Their firm holds annual VDOT contracts for both permitting and noise analysis. They also hold on-call contracts for L&D, structure and bridge, and traffic engineering, and has delivered successful projects for the Salem District.

Subconsultants and/or Subcontractors

RUMMEL, KLEPPER & KAHL, LLP

Support for All Design Services

RK&K RK&K, as a major design subconsultant, will assist Lead Designer WRA with overall project management for all design activities. RK&K has delivered 52 road and bridge D-B projects in 17 states and DC, including the \$58M US 13/158 D-B Project in North Carolina with Branch as the Lead Contractor. RK&K has a solid reputation for strategically aligning teams to meet the specific needs and requirements of D-B projects. RK&K’s experience with VDOT includes over 500 projects or assignments. RK&K held the initial contracts with VDOT’s Innovative Project Delivery Office, assisting in the development of technical requirements and bridging documents on the earliest D-B and P3 projects administered.

RK&K has successfully delivered more than \$3.2B in D-B projects for VDOT and other DOTs, including I-64 Widening and Route 623 Interchange Improvements, I-64 Widening High Rise Bridge and the Route 29 Solutions project, on which WRA was a subconsultant. Additionally, RK&K has extensive experience along the I-81 corridor. This experience includes 25 project designs, studies, safety improvements, and construction inspection projects, including providing design services on Exit 105 as a subconsultant to WRA.

SCHNABEL ENGINEERING, LLC

Geotechnical Engineering

Schnabel has extensive VDOT experience that spans several decades and includes more than 500 highway, bridge, interchange, tunnel, slope, retaining structure, railroad crossing, and water crossing projects. Schnabel’s project experience extends throughout the Commonwealth supported by more than 400+ staff with offices in Blacksburg, Charlottesville, Sterling, Richmond, and Newport News.

Schnabel has provided geotechnical services on more than \$7B worth of VDOT D-B and P3 projects, including the I-81 NB Truck Climbing Lanes in Rockbridge County. Their firm has an established relationship with Branch, ORDERS, WRA, and RK&K and has teamed with them on many projects.

OTHER TEAM MEMBERS

We have included the following subcontractors/sub-consultants based on their relevant experience and established working history of D-B project success with the VDOT and our Team members.

- **H&B Surveying and Mapping, LLC (DBE/WBE)** will provide surveying and SUE
- **NXL, a Division of Century Engineering, Inc.** will provide QC services
- **Stevenson Consulting, LLC (SWaM)** will provide QA laboratory testing services
- **ECS Mid-Atlantic, LLC** will provide QC laboratory testing services
- **KDR Real Estate Services, Inc.** will provide right of way (ROW) support services

3.3.1 KEY PERSONNEL

Key Personnel are presented in **EXHIBIT 3.3-3**. Key Personnel Resume Forms for each are provided in Appendix 3.3.1.

EXHIBIT 3.3-3 | Key Personnel

POSITION	NAME	FIRM
Design-Build Project Manager (DBPM)	M. Jeff Humphreys, Jr., DBIA	Branch
Entrusted Engineer in Charge (EIC)	Maggie Cossman, PE, DBIA	Branch
Quality Assurance Manager (QAM)	Chad McMurray, PE, CCM, PMP, DBIA	WRA
Design Manager	Mike Russell, PE, DBIA	WRA
Construction Manager	Robert (Bob) Cross	Branch
Incident Management Coordinator (IMC)	David C. Scott	Branch

3.3.2 TEAM ORGANIZATION

The Organizational Chart presented in **EXHIBIT 3.3-4** on the next page outlines the structure of our proposed Team. The “chain of command” shown in the chart by solid lines represents the primary reporting relationships. Dashed lines represent communication relationships between major project disciplines and participants. This structure was created to specifically address the overall Project scope, the anticipated schedule for completion, and the risks involved in meeting Project objectives. A narrative that describes the functional relationships and communications among our Team follows.

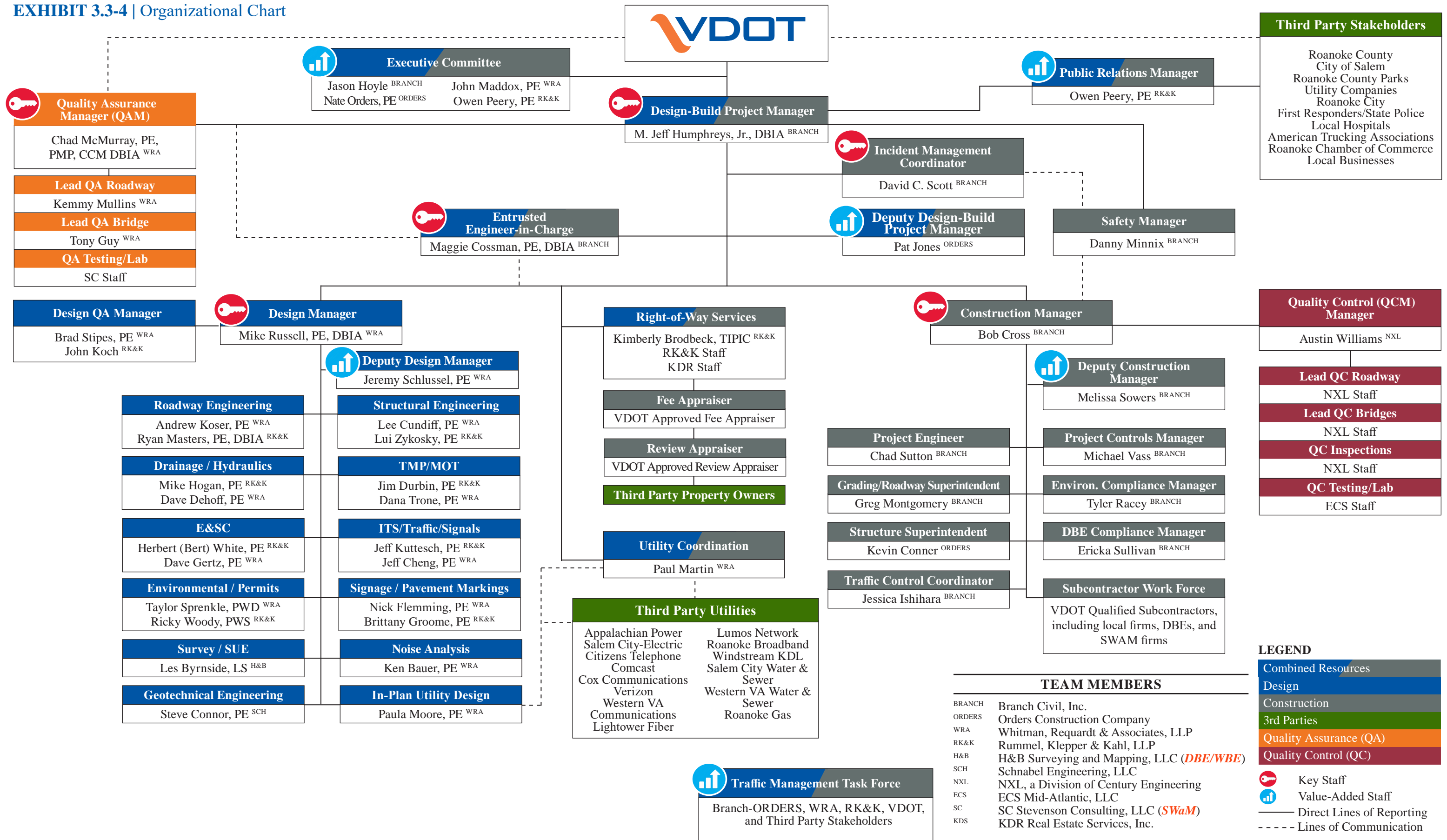


DBPM

M. Jeff Humphreys, Jr., DBIA

Jeff will provide overall project design, construction, quality management, and contract administration. He will be the single point of contact for VDOT and will promote efficient communication and coordination between the design and construction teams and enforce safety and

EXHIBIT 3.3-4 | Organizational Chart



- TEAM MEMBERS**
- BRANCH Branch Civil, Inc.
 - ORDERS Orders Construction Company
 - WRA Whitman, Reardon & Associates, LLP
 - RK&K Rummel, Klepper & Kahl, LLP
 - H&B H&B Surveying and Mapping, LLC (DBE/WBE)
 - SCH Schnabel Engineering, LLC
 - NXL NXL, a Division of Century Engineering
 - ECS ECS Mid-Atlantic, LLC
 - SC SC Stevenson Consulting, LLC (SWaM)
 - KDS KDR Real Estate Services, Inc.

- LEGEND**
- Combined Resources
 - Design
 - Construction
 - 3rd Parties
 - Quality Assurance (QA)
 - Quality Control (QC)
 - Key Staff
 - Value-Added Staff
 - Direct Lines of Reporting
 - Lines of Communication

environmental compliance. Jeff will use his D-B expertise in fostering innovative solutions to project design and construction means and methods. Jeff brings more than 40 years of project management experience, having worked as DBPM on many highway and bridge projects.

ADDED VALUE: Jeff excels in bringing a variety of D-B and transportation projects to completion on time and within budget. He served as the DBPM on I-64 Widening Exit 200 to 205 D-B Project in New Kent and Henrico Counties. This challenging interstate widening project widened the roadway from four to six lanes, widened two existing bridges over the Chickahominy River, and rehabilitated existing structures to accommodate additional lanes. The project faced extreme weather conditions, including heavy flooding that impacted bridge construction. Despite these challenges, Jeff led the team to early completion, earning the maximum incentive bonus from VDOT.



ENTRUSTED EIC

Maggie Cossman, PE, DBIA

Maggie is a Virginia licensed Professional Engineer who will be assigned to the Project full-time and will be actively engaged in coordinating all engineering decisions for the life of the Project (from Notice to Proceed through Final Acceptance). She will ensure that all engineering work for the Project is integrated and conforms with the Contract Documents, and that a safe, constructible, and functional Project is delivered. Maggie will compile, sign, and seal the cover sheet of the aggregate collection of the final documents for the Project. She will report directly to the DBPM and will work closely with the Design Manager, Construction Manager, and QAM and will have the authority to stop work at any time. She will confirm that engineering decisions for one component of the Project are evaluated for impacts to the entire Project, and that sound engineering decisions are made by responsible charge engineers.

ADDED VALUE: Maggie has 23 years of field experience and is currently serving in a similar role on the I-95 Express Lanes Fredericksburg Extension (FredEx) D-B Project, which will wind down before this project is awarded. In this role, Maggie monitors all of the critical project issues with the Owner and tracks/monitors all critical path design activities. This project experience on adding capacity to a challenging interstate roadway will be of great benefit to our Team and VDOT.



QAM

Chad McMurray, PE, CCM, PMP, DBIA

Chad will report to the DBPM on all quality issues to ensure independence from construction operations and will implement the QA/QC Plan. Any item of work failing to meet minimum standards will be rejected and corrected immediately. Construction personnel will

have no authority over QA inspection staff, and Chad will assist with resolving issues raised by construction personnel. As QAM, Chad will hold the authority to stop work if quality issues warrant. QA Inspectors will report directly to him, and together with Chad, will be assigned to the Project on a full-time basis for the duration of the construction operations.

ADDED VALUE: Chad has 26 years in construction on major highway transportation projects and acting as QAM on D-B projects for VDOT. With extensive experience in the I-81 corridor, his experience as a QAM includes the I-81 over Route 11, Norfolk Southern Railway (NSR), and Holston River D-B Project in Smyth County and I-81 Halls Bottom Road Bridge Replacement D-B in Washington County.



DESIGN MANAGER

Mike Russell, PE, DBIA

Mike will report directly to the DBPM and will maintain close communication with the DBPM and the Entrusted EIC. He will coordinate all design disciplines, including subconsultants, ensuring the overall Project design conforms to the contract. All design disciplines report directly to Mike, who will provide VDOT with design plans for review and approval. He will also oversee the Design QA/QC program and communicate with the Construction Manager. He will be supported by the Design QA Managers, who will provide the independent design QA functions.

ADDED VALUE: Mike has led design teams on a wide variety of transportation projects. He has successfully managed the development of D-B-B projects, developing RFP Conceptual Plans and Technical Requirements, and the on-time delivery of D-B projects. He has 31 years of experience designing and managing major transportation projects for VDOT and was the Design Manager for the I-64 Widening Exits 200 to 205 in Henrico and New Kent Counties and I-81 Halls Bottom Road Bridge Replacement D-B in Washington County. He also spent 14 years serving VDOT in various roles, including the District Engineer of VDOT's Bristol District and the PE Manager in the Salem District.



CONSTRUCTION MANAGER

Bob Cross

Bob will report directly to the DBPM and will be on-site full-time for the duration of construction operations. His daily duties include managing the construction process through an accurate project baseline schedule that consists of all QC activities to ensure materials used and work performed meets contract requirements and approved construction plans. He will coordinate weekly meetings with the QAM and QCM to discuss all ongoing construction activities. **Bob holds a Virginia Department of Environmental Quality (DEQ)**

Responsible Land Disturber (RLD) Certification and a VDOT Erosion and Sediment Control Contractor Certification (ESCCC), which he will maintain throughout the life of the Project.

☑ **ADDED VALUE:** Bob has over 40 years of experience as a Construction Manager and General Superintendent on roadway and bridge construction. This heavy civil experience will be very invaluable for this challenging and complex Project. Bob also worked as the Superintendent alongside DBPM Jeff Humphreys on the I-64 Widening Exit 200 to 205 D-B in New Kent and Henrico Counties.



IMC
David C. Scott

David will report directly to the DBPM and will be on the Project site for the duration of construction operations. He will respond to all incidents within the project limits and will serve as VDOT's IMC applying National Incident Management System (NIMS) principles and practices. David will be the key point of contact for issues involving incident management and will be responsible for real-time coordination and communication during emergencies that take place in the work zone. *David will have all required certifications before construction begins on this Project.*

☑ **ADDED VALUE:** A former law enforcement officer for the City of Roanoke, David is very familiar with the Project corridor and its issues. An effective communicator, he is responsible for the day-to-day safe working operations on complex transportation projects throughout the Southeast and mid-Atlantic. He has demonstrated experience in traffic management and has been responsible for traffic control in and around the Project corridor during major traffic incidents, crowd control, significant weather events, natural disasters, crime scenes, and special events.

Value Added Personnel

Our Team has learned from previous D-B projects that a highly successful team requires more than solely the Key Personnel identified in the RFQ. We are *exceeding the RFQ requirements* by committing the following **VALUE-ADDED** positions that will provide an efficient organizational structure and strengthen our Team to deliver the Project successfully. These Team members have extensive D-B experience throughout Virginia.



DEPUTY DBPM, Pat Jones, has been added to the Team due to the project's complexity to assist the DBPM as needed. Pat is the ORDERS Construction Virginia Division Manager and directly manages all VDOT work in Virginia. Pat was the DBPM for the VDOT Atkins D-B Project in the Bristol District, for which WRA was the Lead Designer. He has more than 20 years of construction experience and has completed numerous

successful D-B and D-B-B projects. Pat will assist the DBPM with project team management, job progress oversight, and proper resource allocation. His other objectives in this role include coordinating with the adjacent projects, conflict resolution, training, and mentoring.



Providing oversight for this project are the members of our **EXECUTIVE COMMITTEE**, including Jason Hoyle (Branch), Nate Orders (ORDERS), John Maddox, PE (WRA), and Owen Peery, PE (RK&K). This group will support project management by committing resources, including design and construction personnel, equipment, materials, and financial, needed to ensure Project success. The Executive Committee will review progress, issues, and proposed resolutions to make sure the Team is meeting commitments.



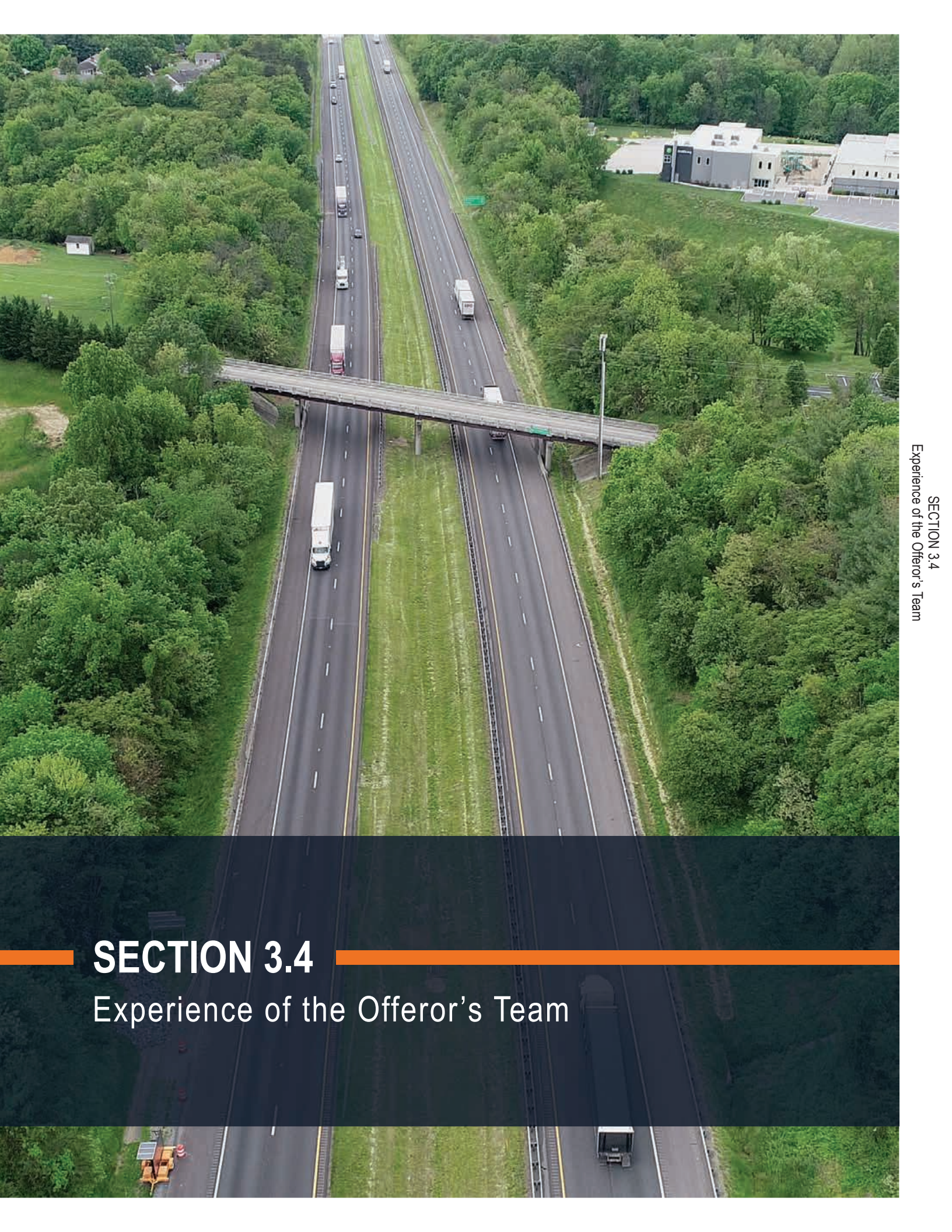
The engagement of our **TRAFFIC MANAGEMENT TASK FORCE (TMTF)** will be critical to minimizing disruptions of traffic. The TMTF will meet regularly to review the maintenance of traffic (MOT) and optimize traffic safety and efficiency and will include both design and construction personnel. Its goal will be to minimize delays to the traveling public, reduce disruptions to adjacent projects and businesses, and maximize safety throughout construction. The TMTF will also maintain coordination with nearby projects, notably the D-B-B Project, from MM 141 to MM 143, currently under construction by Branch. VDOT and relevant stakeholders will be invited to participate and recommendations generated by this group will be implemented into the MOT plan.



DEPUTY DESIGN MANAGER, Jeremy Schlüssel, PE, has been added to the team to assist the Design Manager as needed. He has 23 years of progressive experience in structure and bridge design and has led structural/bridge design and contract management for VDOT Bridge Maintenance and Repair contracts since 2006. These efforts have been successfully executed under five consecutive contracts totaling over 300 tasks. Most recently along the I-81 corridor, Jeremy served as Senior S&B Engineer for I-81 Bridges Over New River (Montgomery and Pulaski Counties), I-81 Over Halls Bottom Road (Washington County), and I-81 Over Route 11, NSR, and Middle Fork Holston River (Smyth County).



DEPUTY CONSTRUCTION MANAGER, Melissa Sowers, has been added to provide construction team assistance to the Construction Manager. Melissa has more than ten years of construction experience and was the Assistant Construction Manager on the nearby I-81 Exit 150 Project and US Route 58 Laurel Fork and Tri-County Connector PPTA, as well as Branch's current I-81 MM 141 to 143 Project. She will aid in the management of the construction process, including all QC activities.



SECTION 3.4

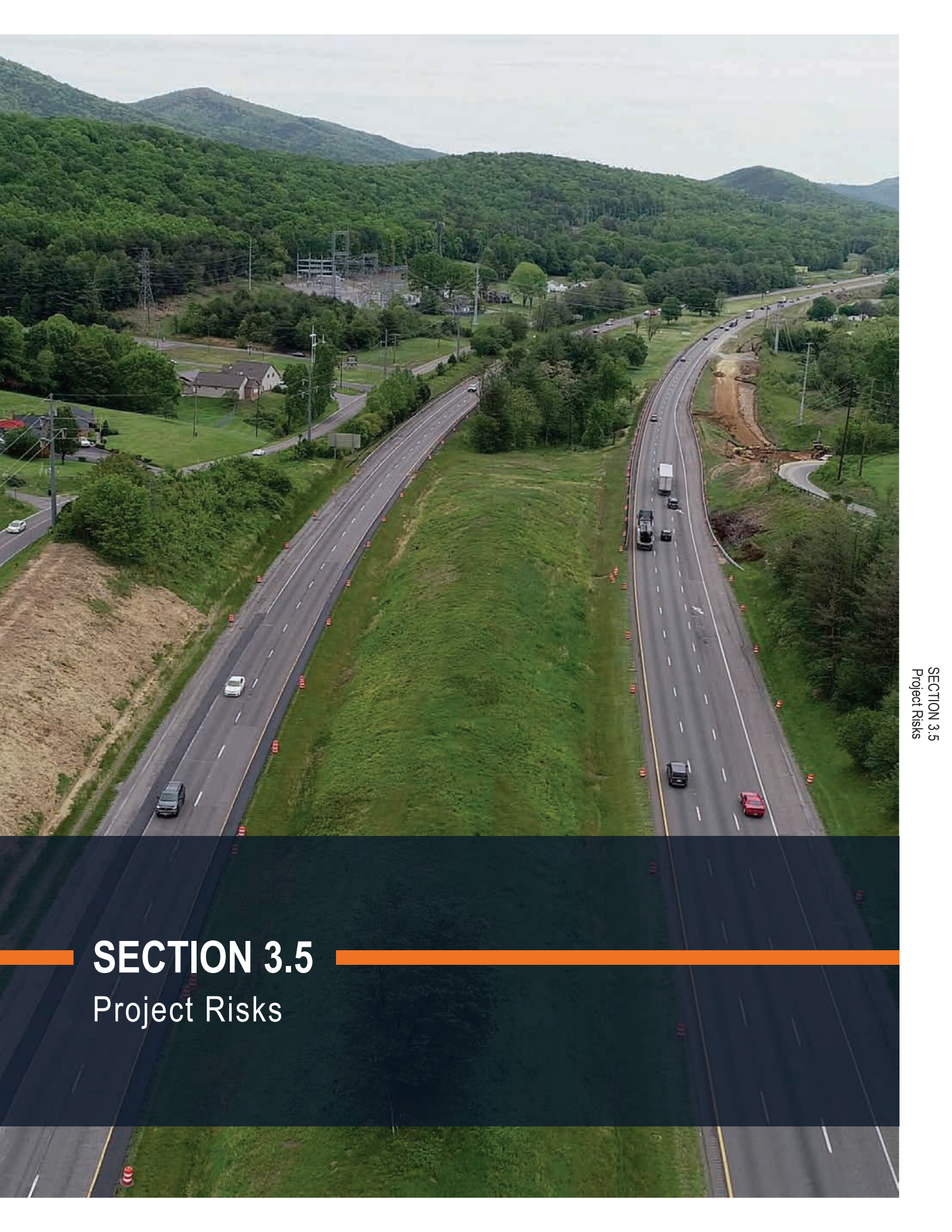
Experience of the Offeror's Team

3.4 EXPERIENCE OF THE OFFEROR'S TEAM

As demonstrated in the table below, our Team has successfully delivered some of the most challenging roadway and bridge projects in the Southeast and mid-Atlantic. Many of these projects are similar in scope and size to the I-81 Project. We have a proven history of partnering with clients to provide exceptional results when faced with technical, environmental, and stakeholder challenges. As a result, we deliver high-quality projects safely, on time, and at a significantly lower price than our competitors. We also have unmatched experience delivering large, complex projects in congested urban areas and providing infrastructure enhancements economically, efficiently, and with minimal impacts on mobility, resources, and the community. We bring valuable lessons learned from each of these projects, as well as an experienced Team of local D-B experts who understand VDOT's goals for this Project. Work history forms for the Contractor and Lead Designer are provided in Appendix.3.4.1.



PROJECT NAME & LOCATION			TEAM MEMBERS	COST	DELIVERY METHOD	ROADWAY WIDENING	STRUCTURES	GEOTECHNICAL	ENVIRONMENTAL / E&SC	UTILITIES	PERMITTING	MOT	DRAINAGE / SWM	STAKEHOLDER RELATIONS
I-95 Express Lanes STE, Stafford County, VA			Branch, WRA	\$37M	D-B	☐		☐	☐	☐	☐	☐	☐	☐
I-95 Safety Improvements at Route 3, Fredericksburg, VA			Branch, WRA	\$18M	D-B	☐		☐	☐	☐	☐	☐	☐	☐
I-81 over Route 808, Halls Bottom Road and Sinking Creek, Washington County, VA			ORDERS, WRA	\$11M	D-B	☐	☐	☐	☐	☐	☐	☐	☐	☐
George Mason University Campus Connector, Fairfax County, VA			Branch, WRA	\$16M	D-B-B	☐	☐	☐	☐	☐	☐	☐	☐	☐
I-64 Widening Exit 200 to 205, Henrico and New Kent Counties, VA			Branch, WRA	\$48M	D-B	☐	☐	☐	☐	☐	☐	☐	☐	☐
I-81 over Route 11, NSR, and Middle Fork Holston River, Smyth County, VA			ORDERS, WRA	\$30M	D-B	☐	☐	☐	☐	☐	☐	☐	☐	☐
I-81 Bridge Replacement over Maury River, Rockbridge, VA			ORDERS, WRA	\$19M	D-B-B	☐	☐	☐			☐	☐	☐	☐
Route 60 Main Street Bridge Replacement, Allegheny County, VA			ORDERS	\$3M	D-B		☐	☐	☐	☐	☐	☐	☐	☐
Route 29 Solutions, Charlottesville, VA			RK&K, WRA, Schnabel	\$116M	D-B	☐	☐	☐	☐	☐	☐	☐	☐	☐
R-2507A US 13/158, Hertford & Gates County, NC			Branch, RK&K	\$58M	D-B	☐	☐	☐	☐	☐	☐	☐	☐	☐
R-2721A Triangle Expressway, Wake County, NC			Branch	\$183M	D-B	☐	☐	☐	☐	☐	☐	☐	☐	☐
R-2721B Triangle Expressway, Wake County, NC			Branch	\$162M	D-B	☐	☐	☐	☐	☐	☐	☐	☐	☐
U-2519AA/BB Fayetteville Outer Loop, Cumberland County, NC			Branch	\$129M	D-B	☐	☐	☐	☐	☐	☐	☐	☐	☐
I-95 Express Lanes FredEx, Fredericksburg, VA			Branch	\$291M	D-B	☐	☐	☐	☐	☐	☐	☐	☐	☐
US Route 58 Laurel Fork and Tri-County Connector PPTA, Carroll, Floyd, and Patrick Counties, VA			Branch	\$118M	PPTA	☐	☐	☐	☐	☐	☐	☐	☐	☐
US Route 58 Hillsville Bypass, Carroll County, VA			Branch	\$83M	PPTA	☐	☐	☐	☐	☐	☐	☐	☐	☐



SECTION 3.5

Project Risks

3.5 PROJECT RISKS

To identify the three critical project risks below, our Team performed a formal risk analysis of the project scope, project site characteristics, travel patterns, and crash history. By leveraging our local knowledge of the project corridor, and our experience on multiple interstate widening projects, we determined that the following had the potential to be the most critical risks and needed further exploration: Environmental Impacts, Karst Terrain, Maintenance of Traffic (MOT), Resource Availability, and Incident Management.

Our Team of experts from all disciplines reviewed each potential risk concerning safety, cost, schedule, quality, and public perception, among others, to compare the potential impacts fairly and equally. Given the potential of significant safety, cost, and schedule impacts to the Project, the following three risks rose to the top of our risk evaluation. We have determined these to be the most critical to the Project. Each is equally critical, and if not adequately mitigated, could negatively impact schedule, cost, quality, safety, and/or public perception.

RISK #1: MAINTENANCE OF TRAFFIC

Interstate capacity improvement projects typically feature traffic traveling at high speeds adjacent to the work zone and always involve a risk for the Team to ensure a safe work environment and safe movement of traffic through the work zone. Changes in traffic patterns, speeds, and construction access points (especially to the median of I-81) need to be clearly identified and thoroughly mitigated.

Risk Identification and Why it is Critical

Providing a work zone that facilitates safe and efficient mobility through the corridor at all times is the goal of any MOT plan. It is paramount to maintaining the schedule and a positive public perception of the Project. This corridor serves numerous populations within the region and is the primary route between the northeast and the southeastern United States. Users of this facility include commercial traffic, tourists, and those on their daily commute. Additionally, this area has a significant crash rate and a highly unreliable Level of Service (LOS), particularly during peak hours throughout this segment of the corridor. Without a properly executed Transportation Management Plan (TMP) that includes a vigorous MOT, Incident Management Plan (IMP), and Communications Plan, safety and mobility will be substantially impacted throughout the corridor and is, therefore, a critical risk.

Risk Impacts

The impacts of this risk are primarily on the safety of workers and the traveling public. Also, potential sec-

ondary impacts include public perception of the Project and the disruption of commerce and economic health of the region. This is due to not only incidents, but also congestion itself – not necessarily caused by incidents, but simply by the additional constraints of the work zone, including narrowed lanes and shoulders and decreased merger areas. These impacts also have subsequent schedule impacts that directly affect the success of the Project not only from VDOT's perspective, but also from the D-B Team. The likelihood and severity of these impacts is compounded by driver distraction and commuter fatigue on this heavily traveled roadway.

Construction activities introduce an often-unexpected component for the drivers to manage. Other consequences can include lower productivity due to the inability to get materials and workers to and from the work zone and due to delays caused by congestion. The work zone must strive to enhance the safety of motorists and construction workers in the area. Additionally, if mobility through the corridor is not maintained, or if safety is perceived to be compromised, the schedule will be negatively impacted by a public that will demand changes in the traffic patterns and available lanes, causing redesign and/or significant changes to the TMP. Other critical considerations regarding MOT include the following:

- **Heavy Commuter Traffic between the Roanoke Valley and New River Valley:** Includes traffic from Virginia Tech and the numerous City of Roanoke medical and industrial facilities.
- **Commercial Through-Trucking Traffic:** Substantial commercial through truck traffic exists along the entire corridor, and efficient movement along I-81 is critical to the delivery of goods and supplies throughout the Commonwealth and the region. An adequately designed work zone must provide space for trucks to move through the work zone safely and give the longer distances needed for their acceleration and deceleration.
- **Construction Vehicles Entering the Work Zone:** Vehicles entering and leaving the work zones from the interstate, primary, or secondary roads will slow traffic affecting the entire flow of the roadway. Maintaining access and providing adequate space for merging traffic will be critical to the overall safety and efficiency of traffic flow.
- **Long Distance Commercial Traffic:** Long-distance commercial traffic and recreational users pass through this segment in large numbers. This traffic may not be as aware of changing traffic patterns during phased construction. This traffic introduces safety concerns due to drivers being unaware of a shift in roadway alignment or other work zone activities.

Mitigation Strategies

To mitigate the impacts of this risk, our Team will incorporate lessons learned from other interstate roadway widening projects to provide safe and efficient mobility through the project corridor. This experience includes the following successful D-B projects:

- I-95 Express Lanes STE D-B (Branch and WRA).
- I-64 Widening Exit 200 to 205 (Branch and WRA).
- I-81 Bridge Replacement over Halls Bottom Road and Sinking Creek (WRA and ORDERS).
- I-81 Bridge Replacement Project over Route 11, Norfolk Southern Railroad, and the South Fork Holston River (WRA and ORDERS).

Additional complex MOT experience comes from the I-81 New River Bridge Replacement project designed by WRA, with RK&K providing all of the MOT designs; RK&K’s design on the I-64 Widening and Route 623 Interchange D-B; the I-64 Widening and High Rise Bridge D-B; and the I-81 Exit 14 Reconstruction.

PROJECT-SPECIFIC TMP

A successful project has a TMP tailored to its unique characteristics. Our project-specific TMP includes the following elements:

MOT Plan

Phasing of construction will be integral to the development of an effective MOT Plan. We will develop a sequence of the construction plan to minimize the number of traffic shifts necessary to construct the roadway widening, with careful attention to separating the work zone from travel lanes. As expected, our MOT plan will incorporate outside shoulder strengthening and signage to safely shift traffic away from the median and to coordinate with construction. This action will maintain efficient traffic flow, allowing access to the

work zone for construction traffic. Interchange ramp access would function as it does today. This approach will involve appropriate barrier, signage, striping, and advance warning devices.

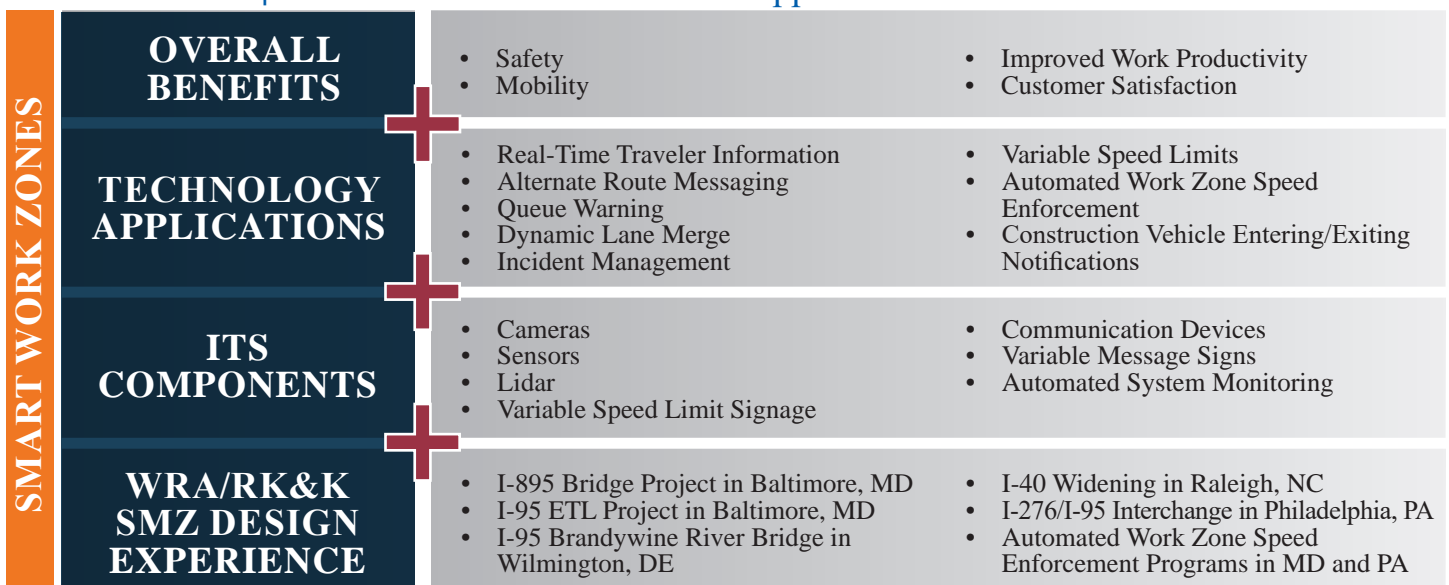
Smart Work Zone (SWZ) Technology

The technological advances in today’s world of electronics and communications afford our industry with tools to more appropriately manage complex traffic management through work zones than ever before thought possible. A SWZ is proven to be very efficient and cost-effective at managing the dynamic conditions of highly congested work zones with greater speed than ever before thought possible. Traffic cameras, sensors, Bluetooth, and cellular probes can detect traffic changes and backups as they happen – allowing real-time adjustments. We feel that VDOT should require this technology and approach on this and other I-81 projects planned in the coming years.

WRA and RK&K are two of the region’s most well-qualified, SWZ-experienced engineering firms. Each has extensive experience in developing and implementing SWZ technology. From WRA’s work on the SWZ for the I-895 Bridge Replacement project around Baltimore, and the I-95 Rehab project in Delaware, to RK&K’s I-40 Widening SWZ and the Automated Speed Enforcement program in Maryland, our team has proven leaders in leveraging technology and traffic engineering expertise to create safer and more efficient work zones than ever before.

This expertise, combined with a detailed IMP, further described in Risk #3 in this section, can help to minimize the congestion associated with typical work zone slow-downs and severe incident delays. **EXHIBIT 3.5-1** illustrates the benefits and applications associated with today’s advanced SWZs.

EXHIBIT 3.5-1 | Smart Work Zone Benefits and Applications



SWZ application for this Project will be evaluated following the Federal Highway Administration (FHWA) *Work Intelligent Transportation Systems Implementation Guide*.

Communications Plan

In addition to establishing a thorough Communications Plan to be followed throughout the life of the construction, our Team will take additional steps to further educate the public about the plan for the Project's completion.

Following the contract award, we will conduct the first meeting of the Traffic Management Task Force (TMTF). This meeting will be an initial partnering meeting session with VDOT, third-party stakeholders, and the Team, to review project requirements and discuss traffic issues related to construction.

From this initial meeting, we will develop a checklist of responsibilities and timelines for achieving mutually agreeable activities/goals for a successful TMP. Additional public outreach activities will include:

- Informational meetings to inform the public of project activities and solicit project feedback to incorporate into our TMP.
- Pardon Our Dust meetings to inform the public of construction activities.
- Establishing a public communications plan to maintain a connection with the public.
- Work with first responders to obtain their input on our TMP.

Incident Management Plan

As we have done on several recent similar VDOT projects, including I-95 STE, I-95 FredEx, and the I-64 Widening Exit 200 to 205 D-B, our Team will prepare a comprehensive IMP. See Risk #3 in this section for further details on the IMP.

Role of VDOT/Other Agencies

A detailed and effective MOT strategy is a core component of the development and execution of any project. We anticipate that the role of VDOT and other agencies to include what is typically expected: to be a partner and collaborator in the process. Additionally, we fully understand the benefit of the use of SWZ technology. We anticipate VDOT will agree that the I-81 Corridor's ongoing projects are an appropriate place to implement a robust SWZ program and will require minimum standards for all Offerors to meet. The expertise brought by our Team will ensure that the latest advances in this technology will be delivered where needed and practicable. Other than standard incident management assistance by first responders as needed, we anticipate no significant role from other agencies in these issues.

RISK #2: RESOURCES AVAILABILITY

Our Team understands that finding and keeping qualified personnel and is a significant focus for the I-81 Project. The introduction of COVID-19 into our daily work routine compounds this challenge. Additionally, with multiple projects under construction and/or planned in and around Roanoke and Salem, the availability of materials is a critical issue that must be effectively handled.

Our Team brings together two leading construction firms with deep roots in Virginia, especially in the Roanoke area. With Branch's headquarters in Roanoke and ORDERS' recent completion of several projects in the I-81 corridor, we offer the resources, experience, and capabilities to manage and construct high profile highway projects in the Roanoke area. With this Project in our back yards, we bring VDOT and the residents who use I-81 in their daily commute a local Team with a vested interest in the successful completion of the Project.

Our Team includes an Executive Committee that is committed to providing critical resources throughout the life of the Project. Our staff meets and exceeds the requisite experience in D-B and technical capability, with sufficient numbers to manage the works safely, with the highest quality, on schedule, and within budget.

Risk Identification and Why it is Critical

Insufficient resources, both labor and materials, can affect the ability to complete the I-81 Project in a timely and efficient manner. Having an established knowledge of the local area and relationships with many staffing agencies and local material suppliers has never been more critical than it is now. With the current environment of supply chains disrupted, it is essential to have multiple established suppliers lined up in advance of the need.

Risk Impacts

If not quickly addressed, the lack of resources could affect the Project schedule and budget. This could cause the Project to be negatively viewed by the Owner and all stakeholders, therefore impacting the public's perception of the construction industry and VDOT.

Mitigation Strategies

Our Team has the experience and local resources to self-perform all aspects of the roadway, bridges/structures, retaining walls, noise barriers, survey, and utility relocations. **EXHIBIT 3.5-2** on the next page demonstrates the significant level of resources we bring to the table to guarantee the success of this Project.

DESIGN RESOURCES

With seven offices near the Project site, including Roanoke, Bristol, Blacksburg, and Lynchburg, our design Team has local staff who are ready to begin

working immediately upon receipt of a Notice to Proceed. Lead Designer WRA, backed by dedicated major design subconsultant RK&K and Schnabel, delivers over 350 local design staff. The redundancy in shared design resources presents a depth of support that is unmatched by our competition.

CONSTRUCTION RESOURCES

We deliver a well-trained Team that is ready to begin working upon receipt of a Notice to Proceed. To deliver a Project that exceeds VDOT's expectations, we will cross-train our workers to provide a broader skill set. We do this not only to produce a superior product, but to show value to employees by providing upward mobility and career advancement. Because of this, Branch and ORDERS have a very low turnover rate in our work staff. There are many enthusiastic, motivated, and eager unskilled and unemployed workers that lack the proper training to become great career employees. Throughout the construction of the Project, we will offer those workers training and apprenticeships so they can grow with our Team.

OUTREACH FOR LOCAL RESOURCES

Our Team's approach to engaging and using locally-owned businesses and local labor during design and construction includes much of the same commitments that have resulted in our other successful projects completed for VDOT. Our Team will leverage existing agreements with local subcontractors and suppliers, which will drive schedule certainty and cost efficiencies. We will continue outreach efforts after Contract execution and will recruit a workforce through public and private sources to fulfill the workforce requirements.

Opportunities for prospective recruits into the project workforce will be disseminated through outreach events, advertisements in publications, social media, and partnerships with local workforce development organizations and may include the following:



Above | Job Fair Booth | As part of our local outreach, we will hold local hiring events in an effort to include local workers onto our Team.

EXHIBIT 3.5-2 | Team Resources

CONSTRUCTION JV RESOURCES



APPROXIMATELY **250 PIECES** OF CONSTRUCTION EQUIPMENT AVAILABLE FOR THIS PROJECT

185 COMBINED BRANCH AND ORDERS STAFF AVAILABLE WITHIN 100 MILES OF THE PROJECT SITE.



DESIGN TEAM RESOURCES



350+ PROFESSIONALS AVAILABLE TO BEGIN WORKING IMMEDIATELY UPON RECEIPT OF A NTP.

A LEAD DESIGNER WITH AMPLE RESOURCES, SUPPORTED BY

TWO DEDICATED MAJOR SUBCONSULTANTS.



- **Local Staffing and Employment Agencies:** Grow business interests and our localized labor pool by utilizing current contracts and relationships with local staffing and employment agencies.
- **Training Programs:** Provide localized training programs for CDL drivers, heavy equipment operators, and other more specialized roles. Our efforts will include partnerships with local community colleges including Virginia Western and New River, specifically in their programs focusing on construction, building trades, and transportation. Particular focus will be placed on explaining the benefits of a career in construction to local youth in both high schools and technical/vocational schools, including the Roanoke Technical Education Center, the Botetourt Technical Education Center, the Burton Center for Arts and Technology (Salem), and the Gereau Center for Applied Technology and Career Exploration (Franklin County).
- **Local Agency Partnerships:** Strengthen existing relationships with the local Chambers of Commerce and the Roanoke Regional Partnership. Maintain an active role in the Roanoke Regional Chamber's Transportation Advocacy Group policy committee. The goal of these efforts will be to build allies to promote positions and generate interest in the project, construction industry, and employment with the Branch-ORDERS JV.
- **Local Hiring Events:** Plan, promote, and advertise one or multiple local hiring events to educate the area's citizens on the available training programs and career paths as a result of the specific project specifications and workforce outlines. Outlets we

will use to communicate this information will include print advertising, radio, television, and digital marketing to more than 50 job boards. Interviewers will be prepared to make on-the-spot offers and have tools readily available to complete paperwork and drug testing.

- **Recruiting Locally:** Promotion of the Branch-ORDERS JV as a top employer. Encourage local workers to visit our recruitment sites by sponsoring and/or advertising at multiple local hiring events to educate the community on the available training programs and career paths.

MATERIAL RESOURCES

Our Team will ultimately develop a resource and cost loaded Critical Path Method (CPM) schedule for the Project. This schedule will be reviewed for long lead time and critical material items, including structural steel, precast concrete items, and high mast lighting. During the procurement phase of the Project, we will determine which material supplier will be able to meet our Team's schedule for project delivery best. The result may include more than one supplier of the same item, or choosing a supplier that does not have the "lowest" price but can meet or exceed our schedule. Also, during construction, two- and four-week look-ahead schedules will be created from the CPM, and constant communication with all suppliers will ensure timely delivery of materials.

Branch and ORDERS are top tier customers in the supplier world. When dealing with subcontractors and material suppliers, we ensure that they feel like a part of our Team. This inclusion helps keep our projects on schedule and assures a healthy and long-standing working relationship on future projects. In a volatile commodities market, it may become necessary to purchase upfront stored materials items to ensure a slot in the CPM schedule. These materials may be held at the supplier's origin, or could be stored in the Team's lay down yard on or near the project limits. Doing so provides the construction Team immediate access to material resources should our phasing or area of work change due to unforeseen circumstances.

Role of VDOT/Other Agencies

Our Team recognizes that resource availability is an industry-wide issue that all parties will deal with equally. VDOT's role will be minimal, but we welcome its support in promoting job fairs and coordination with outreach to Commonwealth's school system.

RISK #3: INCIDENT MANAGEMENT

Responding to and clearing incidents from I-81 is a challenging task under ideal conditions. Even with a well-designed MOT plan, during a major construction project, incidents will occur in the work zone, and managing those incidents will be a crucial project element.

Risk Identification and Why it is Critical

The risk for incidents during construction is particularly present along this section of the I-81 corridor. This busy corridor experienced a total of 565 crashes and numerous other incidents (including disabled vehicles and road debris) in five years without the presence of a long-term work zone. Incidents can include secondary impacts, including hazardous material spills, which may impact worker safety and require extended clean-up times. Incidents within the work zone have the potential to lead to increased delays and negatively impact mobility through the corridor for local commuters, long-distance recreational travelers, and commercial traffic.

There are few available alternate routes to I-81 through this area, and those routes pass through multiple jurisdictions. Several planned projects also exist along the potential alternate routes, which will likely overlap with the proposed project schedule; this increases the incident management challenges for this Project.

Risk Impacts

Without an effective, proactive approach to managing incidents, traffic delays may increase, and mobility could be negatively impacted. These delays may adversely affect public perception of the Project and decrease support for the improvements, as well as future projects along I-81. If incidents are not successfully managed, changes to the Project's sequence of construction/MOT plans may be required, which could lead to increased costs and schedule delays.

Mitigation Strategies

INCIDENT MANAGEMENT PLAN

Clearing incidents safely and quickly depends on developing coordinated, multi-agency operations that are supported by integrated communications. Our Team will prepare a comprehensive Incident Management Plan (IMP), as we have done on several recent similar VDOT projects, including I-95 STE and I-95 FredEx. This plan will be developed based on our extensive local knowledge of this segment of I-81 and our thorough understanding of the available alternate routes.

The IMP will provide proactive measures to identify and locate incidents rapidly, quickly respond to them, clear those incidents, and implement preplanned detours in the event of a major incident. The IMP will leverage existing elements that VDOT has invested in along the corridor, including Safety Service Patrol (SSP), CCTV cameras, and signal communication upgrades along the parallel routes.

EXHIBIT 3.5-3 on the next page demonstrates the incident planning tasks that will be outlined by our IMP, as well as entities responsible for each.

STAFFING

Our plan will be led by a designated Incident Management Coordinator (IMC), David C. Scott, who will be on-site for the duration of the project and responsible for responding to all incidents. David has the experience and training in safety and work zone management it will take to make this Project a success. He will provide onsite communications during an incident, providing real-time information to the VDOT Traffic Operations Center (TOC) so that they can relay real-time information to the SSP, Virginia State Police, local first responders, and incident coordinators. The IMC will monitor real-time data, including VA 511 (VDOT CCTV cameras), Google Maps, and Waze, to rapidly identify incidents and respond to them. All field crews will be provided detailed instructions to contact the IMC should they observe an incident. **EXHIBIT 3.5-4** on the next page shows locations of existing VDOT CCTV cameras and emergency crossovers.

INCIDENT RESPONSE

Our Team will coordinate with wrecker services to ensure rapid response times to incident sites to quickly move disabled vehicles from the roadway. Activities may include temporary relocation of a vehicle to the shoulder to allow traffic flow to commence immediately and then scheduling a specific time to remove the vehicle from the project site entirely. Emergency crossovers will be maintained, where practical, to allow law enforcement and other first responders to reach incident sites rapidly. SWZ applications could be used to provide email or text message notifications of numerous data points to those involved with monitoring and responding to work zone incidents. The work zone specific traffic data collected allows for further analysis and refinement of work zone operations.

EMERGENCY PULL-OFFS

Emergency pull-offs will be provided frequently throughout the work zone to allow motorists to safely exit the traffic stream in the event of an incident. Emergency pull-offs will also provide areas for wrecker services to remove vehicles and for law enforcement to perform post-incident activities.

DETOURS AND ALTERNATE ROUTES

In the event of a major incident within the work zone, our IMP will include detailed, actionable plans for implementing detours from I-81 to the available alternate routes. The primary alternate route through this segment is US 11/US 460. Access to this corridor is available from I-81/Exits 132, 137, 140, 141, and 143 (via I-581 and Peters Creek Road). Depending on the location and type of incident, a detour could pass through three different jurisdictions: Roanoke County, City of Salem, and the City of Roanoke, with traffic signals maintained by VDOT and the two cities.

EXHIBIT 3.5-3 | Incident Planning Tasks and Responsible Parties

1	IDENTIFY AND LOCATE <ul style="list-style-type: none"> Incident Management Coordinator Field Crews VDOT Transportation Operations Center
2	RESPONSE AND CLEARANCE <ul style="list-style-type: none"> Incident Management Coordinator First Responders Wrecker Service(s)
3	MAJOR INCIDENT / DETOUR IMPLEMENTATION <ul style="list-style-type: none"> Incident Management Coordinator Field Crews VDOT Transportation Operations Center
4	AFTER-ACTION REVIEW <ul style="list-style-type: none"> Incident Management Coordinator VDOT Transportation Operations Center Field Crews VDOT Work Zone Safety Coordinator VDOT Interstate Maintenance Monitor(s)

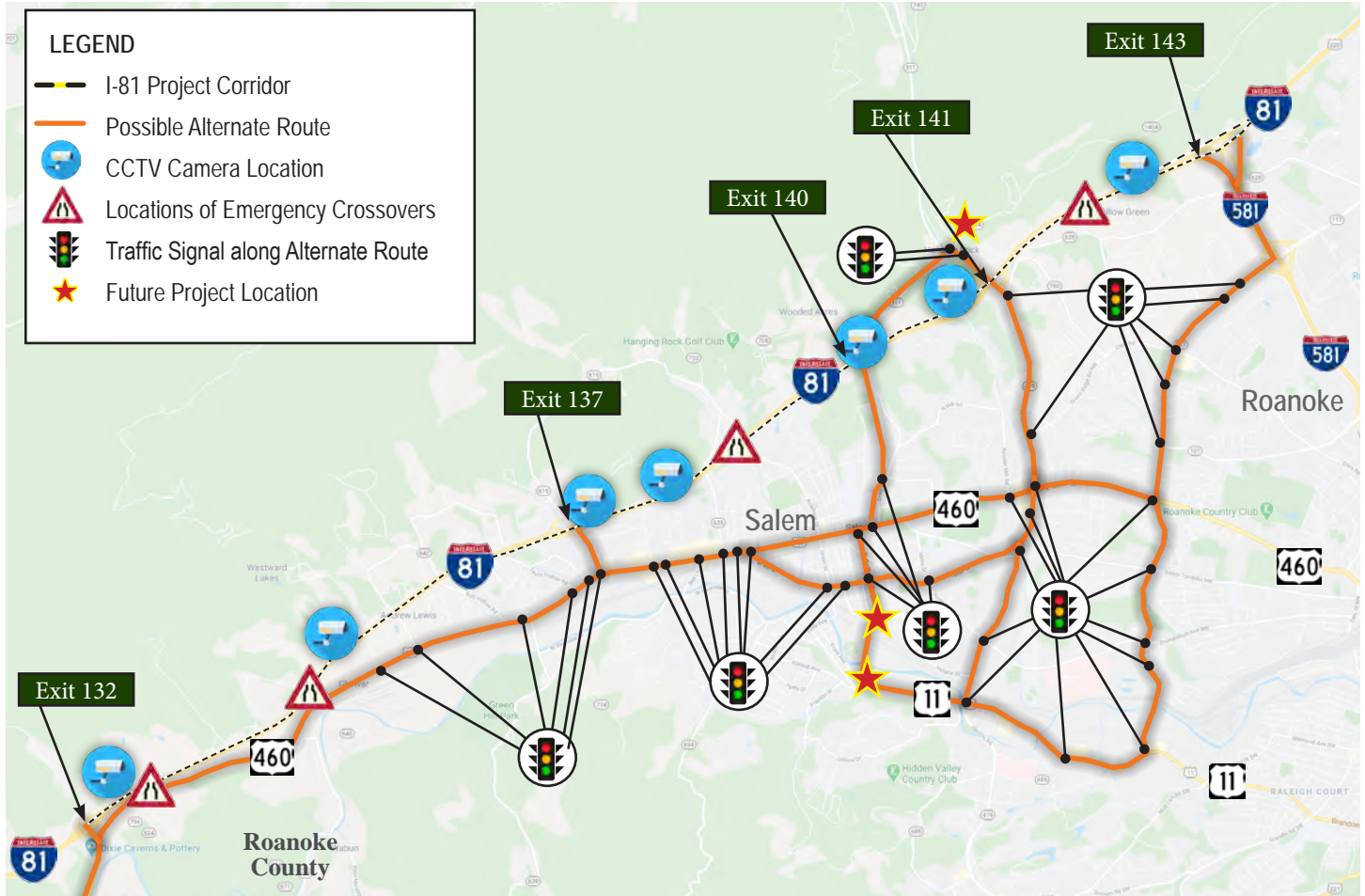
EXHIBIT 3.5-4 on the next page shows potential alternate routes, traffic signal locations, and locations of future projects that may influence these routes. Working closely with VDOT and the local jurisdictions, our Team will establish detour plans for major incidents in each direction between each mainline exit. These plans will include specific dynamic messaging signs (DMS), static signing messages and placement, and utilize timing plans, currently under development by VDOT, to maximize the throughput along the alternate routes.

MOTORIST INFORMATION

A vital element of the IMP will be integrating it with the overall Public Information Plan for the Project to ensure that motorists receive timely, accurate information while traveling through the Project area. It is also essential to ensure that information is available in advance so motorists can prepare for the use of other routes when needed.

Traffic sensors placed within the work zone and/or third-party Bluetooth traffic data can be used to calculate travel times through the work zone from various destinations. This information can be disseminated to drivers in real-time using PCMSs on the I-81 mainline approaches to the work zone and along other major regional roadways (including Routes 647, 112/619, 311, 419, 460, and I-581). This information will allow motorists to make informed decisions about their travel routes. In conditions with excessive traffic or incidents, the travel time warning system can be programmed to switch messaging to encourage alternate routes once predefined thresholds are exceeded.

EXHIBIT 3.5-4 | Potential Alternate Routes, Traffic Signals, and Future Projects



COORDINATION

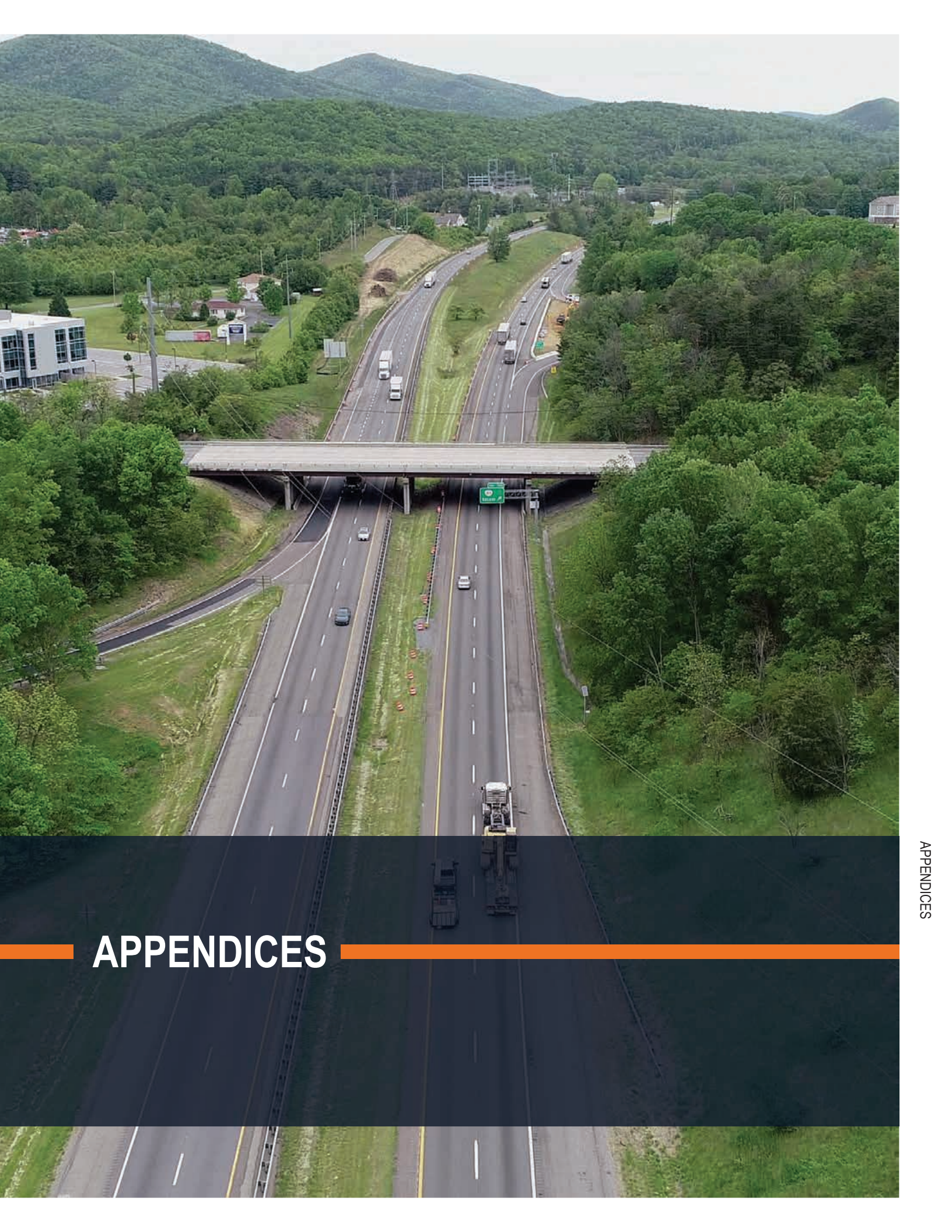
Regular coordination will be critical to the success of the IMP. We recognize that incident management for this Project cannot exist in a vacuum and will require input from VDOT, local governments, and other key stakeholders. Regular partnering meetings will be held to collaborate on the IMP, review the plan, and modify it as needed. This will include *after-action* meetings to discuss lessons learned and apply those to future activities.

We will also coordinate on an as-needed basis with VDOT to understand ongoing projects along the I-81 corridor and ensure that our plan is consistent with nearby projects. These include, but are not limited to, the proposed project between MM 143 and MM 150, which may be under construction at the same time as this Project. Major incidents from one work site could impact another, and we will have a proactive plan in place to effectively and efficiently handle any issues that may occur. Because Branch is constructing the adjacent project between MM 141 and MM 153, coordination between it and this Project will be seamless.

Role of VDOT/Other Agencies

We anticipate that VDOT’s role for supporting the IMP will be led through the Salem TOC and the Regional Operations Manager. The project IMC will coordinate closely with the Salem TOC to alert them to incidents and to begin implementation of the appropriate response plans depending on the severity of the incident. Plans could include initiating the proper detour plan, with prepared messages on DMS and signal timing plans, and coordinating with VDOT Salem Residency forces for the deployment of static signing and supplemental PCMSs.

The support of VDOT Communications will also be critical in pushing out information to motorists through various social media channels. Local agency’s involvement would include coordination with our Team in identifying detour routes and support from local law enforcement and first responders. Local agencies will also provide assistance in implementing incident management timing plans, either through active management of their signals or a Memo of Understanding, allowing VDOT to operate signals during an incident. Interaction between all parties will be critical to mitigate this risk and ensure a successful Project.



APPENDICES



APPENDIX 3.1.2

SOQ Checklist



ATTACHMENT 3.1.2

Project: 0081-080-946

STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

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

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

ATTACHMENT 3.1.2

Project: 0081-080-946

STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

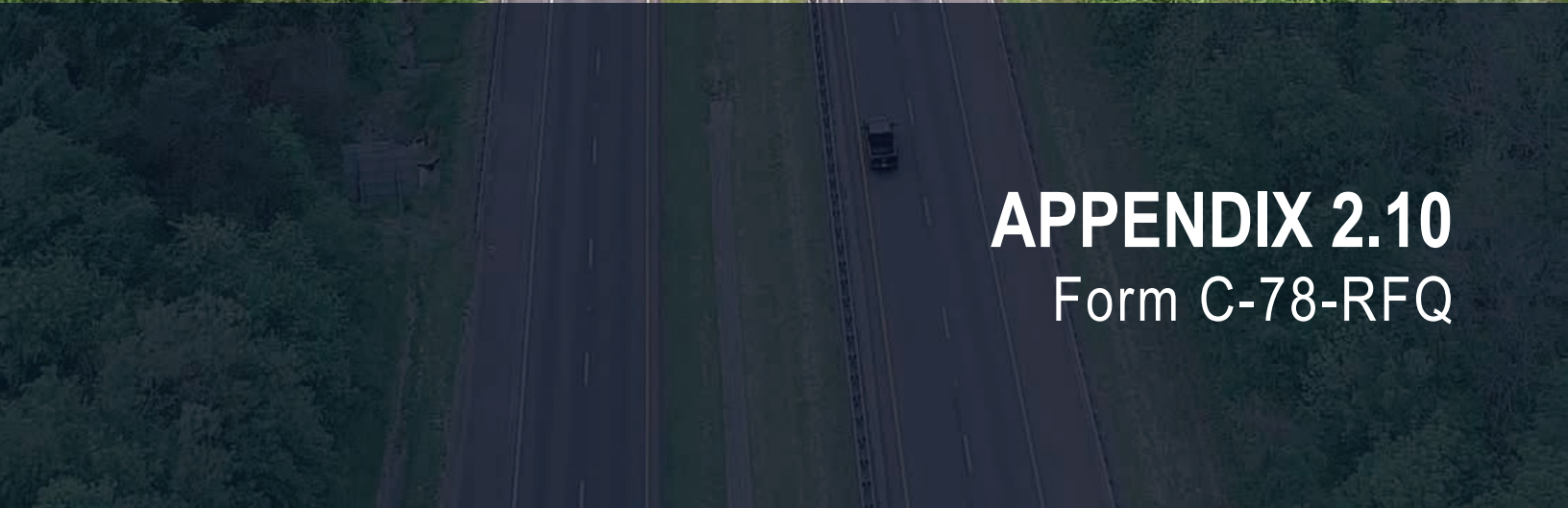
Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 15- page limit?	SOQ Page Reference
SCC and DPOR registration documentation (Appendix)	Attachment 3.2.10	Section 3.2.10	no	Appendix 3.2.10
Full size copies of SCC Registration	NA	Section 3.2.10.1	no	Appendix 3.2.10
Full size copies of DPOR Registration (Offices)	NA	Section 3.2.10.2	no	Appendix 3.2.10
Full size copies of DPOR Registration (Key Personnel)	NA	Section 3.2.10.3	no	Appendix 3.2.10
Full size copies of DPOR Registration (Non-APELSCIDLA)	NA	Section 3.2.10.4	no	Appendix 3.2.10
DBE statement within Letter of Submittal confirming Offeror is committed to achieving the required DBE goal	NA	Section 3.2.11	yes	Page 1
Offeror's Team Structure				
Identity of and qualifications of Key Personnel	NA	Section 3.3.1	yes	Page 4
Key Personnel Resume – DB Project Manager	Attachment 3.3.1	Section 3.3.1.1	no	Appendix 3.3.1
Key Personnel Resume – Entrusted Engineer in Charge	Attachment 3.3.1	Section 3.3.1.2	no	Appendix 3.3.1
Key Personnel Resume – Quality Assurance Manager	Attachment 3.3.1	Section 3.3.1.3	no	Appendix 3.3.1
Key Personnel Resume – Design Manager	Attachment 3.3.1	Section 3.3.1.4	no	Appendix 3.3.1
Key Personnel Resume – Construction Manager	Attachment 3.3.1	Section 3.3.1.5	no	Appendix 3.3.1
Key Personnel Resume – Incident Management Coordinator	Attachment 3.3.1	Section 3.3.1.6	no	Appendix 3.3.1
Organizational chart	NA	Section 3.3.2	yes	Page 5

ATTACHMENT 3.1.2

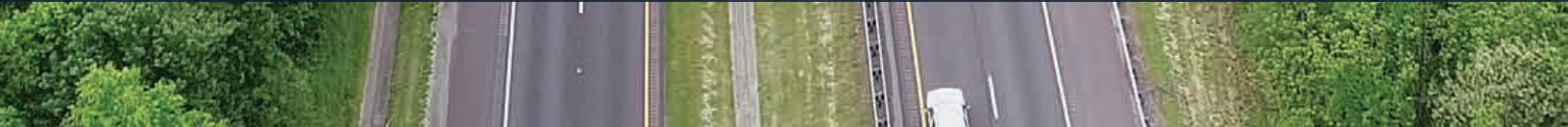
Project: 0081-080-946

STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

Statement of Qualifications Component	Form (if any)	RFQ Cross reference	Included within 15-page limit?	SOQ Page Reference
Organizational chart narrative	NA	Section 3.3.2	yes	Pages 4-7
Experience of Offeror's Team				
Lead Contractor Work History Form	Attachment 3.4.1(a)	Section 3.4	no	Appendix 3.4.1
Lead Designer Work History Form	Attachment 3.4.1(b)	Section 3.4	no	Appendix 3.4.1
Project Risk				
Identify and discuss three critical risks for the Project	NA	Section 3.5.1	yes	Page 9



APPENDIX 2.10
Form C-78-RFQ



ATTACHMENT 2.10

**COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION**

RFQ NO. C00116203DB108
PROJECT NO.: 0081-080-946

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 – May 29, 2020
(Date)
- 2. Cover letter of RFQ - June 18, 2020
(Date)
- 3. Cover letter of _____
(Date)



SIGNATURE

July 8, 2020

DATE

Jason Hoyle

PRINTED NAME

Vice President / Branch Civil, Inc.

TITLE



APPENDIX 3.2.6
Affiliates and/or Subsidiary Companies

ATTACHMENT 3.2.6

State Project No. 0081-080-946

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

Relationship with Offeror (Affiliate or Subsidiary)	Full Legal Name	Address
Affiliate (Parent Company to Branch Civil, Inc.)	The Branch Group, Inc.	PO Box 40004 Roanoke, VA 24022
Affiliate	Branch & Associates, Inc.	PO Box 40051 Roanoke, VA 24022
Affiliate	Branch Builds, Inc.	5732 Airport Road NW Roanoke, VA 24012
Affiliate	G.J. Hopkins, Inc.	PO Box 12467 Roanoke, VA 24025

ATTACHMENT 3.2.6

State Project No. 0081-080-946

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

Relationship with Offeror (Affiliate or Subsidiary)	Full Legal Name	Address
Affiliate	Paramount Builders	505 Sixth Avenue St. Albans, WV 25177
Affiliate	Central Contracting, Inc.	515 Sixth Avenue St. Albans, WV 25177
Affiliate	Allied Construction	4909 Pleasant Valley Road SW Lancaster, OH 43130
Affiliate	Summit Corporation	501 Sixth Avenue St. Albans, WV 25177
Affiliate	Middle Ridge Properties, LLC	501 Sixth Avenue St. Albans, WV 25177
Affiliate	Underground Contractors, Inc.	501 Sixth Avenue St. Albans, WV 25177



APPENDIX 3.2.7
Primary and Lower Tier Debarment Forms

PRIMARY DEBARMENT FORMS

ATTACHMENT 3.2.7(a)

CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project No.: 0081-080-946

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

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


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

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

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

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

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

 _____ Signature	<u>July 8, 2020</u> Date	<u>Vice President</u> Title
---	-----------------------------	--------------------------------

Branch Civil, Inc.

Name of Firm

ATTACHMENT 3.2.7(a)

CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project No.: 0081-080-946

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

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


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

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

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

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

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


Signature

6-9-20
Date

Virginia Division Manager
Title

Orders Construction Company
Name of Firm

LOWER TIER DEBARMENT FORMS


ATTACHMENT 3.2.7(b)

**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0081-080-946

- 1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

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



Signature

June 4, 2020

Date

Vice President

Title

Whitman, Requardt & Associates, LLP

Name of Firm

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0081-080-946

- 1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

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



Signature

July 8, 2020
Date

Director, Transportation
Title

Rummel, Klepper & Kahl, LLP (RK&K)

Name of Firm

ATTACHMENT 3.2.7(b)

**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0081-080-946

- 1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

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



Signature

6/12/2020

Date

Senior Vice President

Title

Schnabel Engineering, LLC

Name of Firm

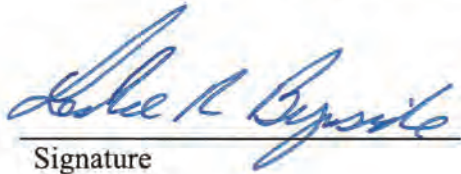
ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0081-080-946

- 1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

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


Signature

June 12, 2020
Date

Vice President
Title

H&B Surveying and Mapping, LLC
Name of Firm

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0081-080-946

- 1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

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



Signature

June 3, 2020

Date

Senior Vice President

Title

Century Engineering, Inc. d/b/a NXL

Name of Firm

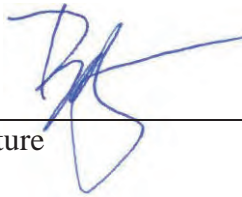
ATTACHMENT 3.2.7(b)

**CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS**

Project No.: 0081-080-946

- 1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

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



Signature

6/5/2020

Date

Vice President/Principal Engineer

Title

ECS Mid-Atlantic, LLC

Name of Firm

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0081-080-946

- 1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

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



Signature

06/11/2020

Date

VP, BUSINESS ADMINISTRATION

Title

SC STEVENSON CONSULTING, Inc.

Name of Firm

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0081-080-946

- 1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

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

Jeff Lyden 6/30/2020 Vice President
Signature Date Title

KDR Real Estate Services
Name of Firm



APPENDIX 3.2.8
VDOT Prequalification



From: [Jason Hoyle](#)
To: [Wendy Ramsey](#); [Donald Bryson](#); [Jeff Humphreys](#)
Subject: FW: Your assigned Joint Venture # is JV097
Date: Thursday, May 21, 2020 2:14:14 PM

Joint Venture prequalification approval and number, see below.

Jason Hoyle
Vice President of Design-Build / Major Projects
O | 540-982-1678 | X20006
M | 540-492-1139

BRANCH CIVIL

VIRGINIA | NORTH CAROLINA
branchcivil.com

This email may contain confidential or privileged information. If you are not the intended recipient, please advise by return email and delete immediately without reading/forwarding to others.

From: kristine.pyers@vdot.virginia.gov [mailto:kristine.pyers@vdot.virginia.gov] **On Behalf Of** VDOT-Prequalification, rr
Sent: Thursday, May 21, 2020 2:11 PM
To: Jason Hoyle <jason.hoyle@branchcivil.com>; nate@ordersconstruction.com
Cc: Harold Caples <harold.caples@vdot.virginia.gov>
Subject: Your assigned Joint Venture # is JV097

BRANCH CIVIL, INC,
ORDERS CONSTRUCTION COMPANY, INC.

Thank-you for submitting the Joint Venture Agreement for **BRANCH-ORDERS JOINT VENTURE** to the Prequalification Office.

We have processed the paperwork to assign a JV number.
This Joint Venture is assigned the # **JV097**

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

Thank-you,
Kristine Pyers
Prequalification Coordinator

--

Thank-you for your firm's inquiry

Prequalification

Joint Venture Bidding Agreement

Branch Civil, Inc. and the following Joint Venturers:

Orders Construction Company, Inc. and _____

This Joint Venture Bidding Agreement is entered into between:

Branch Civil, Inc. Located at 442 Rutherford Avenue, NE, Roanoke, VA 24016 and

Orders Construction Company, Inc. Located at 501 6th Avenue, St. Albans, WV 25177-1448 and

Located at _____

on this ___ day of _____, 20___ as the Joint Venture Name: Branch-Orders Joint Venture

The Joint Venture, Branch-Orders Joint Venture will be using the following Tax Id # 85-0882276

The purpose of this Joint Venture is to bid on upon a solicitation/Contract issued by The Virginia Department of Transportation, and if successfully awarded to provide services as listed under the following contract:

I-81 Corridor Improvement Program ID# 39A/39B (mm 136 to mm 141)

Branch Civil, Inc., the Managing Venturer, will submit all required bid documents and act as point of contact on behalf of this Joint Venture during the bidding process.

Lead Venturer: Branch Civil, Inc. Vendor #: B319

Address: 442 Rutherford Avenue, NE, Roanoke, VA 24016

Authorized Signature: [Signature] Date: 5-12-2020

Printed Name of Authorized Officer: (First, Middle, Last names spelled out): Jason Eric Hoyle

Title: Vice President Driver's License #/State Issued: B69714937 / VA

Lead Tax ID#: 54-1393418 Percentage of Joint Venture: 60%

Lead Contact Phone #: 540.982.1678 Fax#: 540.982.4219 Email: jason.hoyle@branchcivil.com

State of Virginia

County of Roanoke

On this 12th day of May, 2020, before me, the undersigned officer, personally appeared

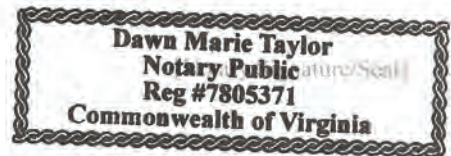
Jason Hoyle known and proven to me to be the person(s) whose name(s) are subscribed to within the instrument and acknowledged that they executed the same for the purposes therein contained.

Lead Authorized Signature: [Signature] Officer's Title: VICE PRESIDENT DESIGN-BUILD / MAJOR PROJECTS

Lead Firm: BRANCH CIVIL, INC.

In witness whereof I hereunto set my hand and official seal. Notary Public:

My commission expires: 4/30/2020



Joint Venture Bidding Agreement (continued)

Joint Venturer: Orders Construction Company, Inc. Vendor #: 0017

Address: 501 6th Avenue, St. Albans WV, 25177-1448

Authorized Signature: [Signature] Date: 5-11-20

Printed Name of Authorized Officer: (First, Middle, Last names spelled out): Nathaniel Robert Orders

Title: President Driver's License #/State Issued: E756559 WV

Venturer Tax ID#: 55-0487806 Percentage of Joint Venture: 40%

Venturer Contact Phone #: 304-722-4237 Fax#: 304-722-4230 Email: Nate@OrdersConstruction.com

State of West Virginia

County of Kanawha

On this 11 day of May, 20 20, before me, the undersigned officer, personally appeared Nathaniel Robert Orders known and proven to me to be the person(s) whose name(s) are subscribed to within the instrument and acknowledged that they executed the same for the purposes therein contained.

Venturer Authorized Signature: [Signature] Officer's Title: President

Venturer Firm: Orders Construction Company Inc.

In witness whereof I hereunto set my hand and official seal. Notary Public: [Signature]
[Notary Signature/Seal]

My commission expires: 11/30/2023



Please submit a current copy of all authorized officers' Drivers License. The Joint Venture officer must be listed in the Prequalified firm's Form C-32, page 2, Confidential Signature Page to transact business for the firm.

Also include a Form C-32 page 3, Firm to Firm Relationships for each Joint Venture firm and page 4, Immediate Family Member Business Relationships for each JV Authorized Officer.



**Department's List of Prequalified Vendors
Includes All Qualified Levels As Of 6/21/2019**

- B -

Vendor ID: B1164
Vendor Name: BRACT RETAINING WALLS AND EXCAVATING LLC
Prequal Level: Prequalified
Prequal Exp: 02/29/2020

-- PREQ Address --

10423 DOW GIL ROAD
ASHLAND, VA 23005
Phone: (804)798-5097
Fax: (804)798-5098

Work Classes (Listed But Not Limited To)

006 - PORTLAND CEMENT CONCRETE PAVING
056 - MASONRY CONSTRUCTION
101 - EXCAVATING

Bus. Contact: NASH, LISA SMITH
Email: INFO@BRACTWALLS.COM

-- DBE Information --

DBE Type: N/A
DBE Contact: N/A

Vendor ID: B319
Vendor Name: BRANCH CIVIL, INC.
Prequal Level: Prequalified
Prequal Exp: 02/29/2020

-- PREQ Address --

P. O. BOX 40004
ROANOKE, VA 24022-0004
Phone: (540)982-1678
Fax: (540)982-4217

Work Classes (Listed But Not Limited To)

002 - GRADING
003 - MAJOR STRUCTURES
045 - UNDERGROUND UTILITIES

Bus. Contact: COLBERT, MICHAEL ANDREW
Email: BCIESTIMATING@BRANCHCIVIL.COM

-- DBE Information --

DBE Type: N/A
DBE Contact: N/A



Department's List of Prequalified Vendors
Includes All Qualified Levels As Of 6/3/2020

- O -

Vendor ID: O143
Vendor Name: OLYMPUS PAINTING CONTRACTORS, INC.
Prequal Level: Prequalified (Conditional)
Prequal Exp: 07/31/2021

-- PREQ Address --

556 ANCLOTE ROAD
TARPON SPRINGS, FL 34689-6701
Phone: (727)942-4149
Fax: (727)938-6297

Work Classes (Listed But Not Limited To)

028 - PAINT BRIDGES AND STRUCTURES
050 - JOINT REPAIR / UNDERSEAL PAVEMENT
071 - EPOXY WORK
182 - BRIDGE CLEANING

Bus. Contact: FAGAN, GRACE
Email: GRACE@OLYMPUSPAINTING.COM

-- DBE Information --

DBE Type: N/A
DBE Contact: N/A

Vendor ID: O017
Vendor Name: ORDERS CONSTRUCTION COMPANY, INC.
Prequal Level: Prequalified
Prequal Exp: 07/31/2020

-- PREQ Address --

P. O. BOX 1448
ST. ALBANS, WV 25177-0448
Phone: (304)722-4237
Fax: (304)722-4230

Work Classes (Listed But Not Limited To)

002 - GRADING
003 - MAJOR STRUCTURES
007 - MINOR STRUCTURES
019 - ERECT FABRICATED STRUCTURAL MATERIAL
055 - BRIDGE REPAIRS

Bus. Contact: CARR, STEVEN MICHAEL
Email: STEVENC@ORDERSCONSTRUCTION.COM

-- DBE Information --

DBE Type: N/A
DBE Contact: N/A



APPENDIX 3.2.9
Surety Letter

Employee Owned



Est. 1864

June 9, 2020

10 Franklin Road SE, Suite 550
Roanoke, VA 24011
Tel (540) 343-8071
Fax (540) 224-1764
www.scottins.com

Mr. Bryan Stevenson, P.E. DBIA
Alternative Project Delivery Division
Virginia Department of Transportation
1401 East Broad Street
Richmond, VA 23219

Re: **Branch-Orders, Joint Venture**
Virginia Department of Transportation
Request for Qualifications
A Design-Build Project
I-81 Widening MM 136.6 to MM 141.8
Roanoke County and City of Salem, Virginia
Contract ID Number: C00116203DB108

Dear Mr. Stevenson:

This letter confirms that Branch-Orders, Joint Venture, comprised of Branch Civil, Inc. and Orders Construction Company is supported by the following co-sureties, Hartford Fire Insurance Company, Fidelity and Deposit Company of Maryland, and Zurich American Insurance Company. All Sureties are listed in the U.S. Treasury Circular 570 dated July 1, 2019 and licensed to do business in all States.

The undersigned sureties confirm pursuant to 3.2 of the RFQ, Branch-Orders, Joint Venture is capable of obtaining a Performance Bond and Payment Bond in the minimum amount of \$225,000,000 if awarded the contract. There is sufficient financial standing, capacity, and resources to carry out their respective roles on this Project.

The standard underwriting procedures in the surety industry would be performed prior to any final approvals and would be contingent on the satisfactory review of contract documents, confirmation of financing, acceptable payment provisions, acceptable bond forms, etc. As this letter is provided to document the abilities of Branch-Orders, Joint Venture, we assume no liability to third parties or to you by issuance of this letter.

We are pleased to share with you our favorable experience and high regard for Branch-Orders, Joint Venture.

Sincerely,

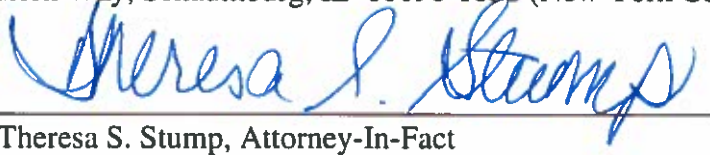
Property & Casualty, Employee Benefits, Bonds, Captives and Private Risk
Charlotte | Greensboro | Greenville | Knoxville | Lynchburg | Nashville | Raleigh | Richmond | Roanoke

Scott Insurance, a division of James A. Scott & Son, Inc.

Hartford Fire Insurance Company – A.M. Best Rating – A+ XV
One Hartford Plaza, Hartford, CT 06155-0001 (Connecticut Corporation)

Fidelity and Deposit Company of Maryland – A.M. Best Rating – A+ XV
1299 Zurich Way, Schaumburg, IL 60196-1056 (Illinois Corporation)

Zurich American Insurance Company – A.M. Best Rating A+ XV
1299 Zurich Way, Schaumburg, IL 60196-1056 (New York Corporation)

By: 

Theresa S. Stump, Attorney-In-Fact



POWER OF ATTORNEY

Direct Inquiries/Claims to:

THE HARTFORD
 BOND, T-12
 One Hartford Plaza
 Hartford, Connecticut 06155
Bond.claims@thehartford.com

call: 888-266-3488 or fax: 860-757-5835

KNOW ALL PERSONS BY THESE PRESENTS THAT:

Agency Code: 14-730214 (MC), 14-730836, 14-731912

- Hartford Fire Insurance Company, a corporation duly organized under the laws of the State of Connecticut
- Hartford Casualty Insurance Company, a corporation duly organized under the laws of the State of Indiana
- Hartford Accident and Indemnity Company, a corporation duly organized under the laws of the State of Connecticut
- Hartford Underwriters Insurance Company, a corporation duly organized under the laws of the State of Connecticut
- Twin City Fire Insurance Company, a corporation duly organized under the laws of the State of Indiana
- Hartford Insurance Company of Illinois, a corporation duly organized under the laws of the State of Illinois
- Hartford Insurance Company of the Midwest, a corporation duly organized under the laws of the State of Indiana
- Hartford Insurance Company of the Southeast, a corporation duly organized under the laws of the State of Florida

having their home office in Hartford, Connecticut, (hereinafter collectively referred to as the "Companies") do hereby make, constitute and appoint, *up to the amount of unlimited:*

*Katherine Fowler of Nashville TN; Stacey W. Hall, James J. Roberts III, Kristen Moore of Richmond VA;
 Robert M. Coon of Greensboro NC; Windy Lovelady of Raleigh NC; Jessica Fisher of Charlotte NC;
 Sherrie B. Denison, Bethany Murphy, Deanna W. Sparks, Theresa S. Stump of Roanoke VA;
 B. Jones III of Franklin TN; Stephen B. Dolin, Joanna M. Carson, Barbara Dawn Martin,
 Melissa V. Carver, Kelly Mundy, Madeleine Skorcz Ferguson of Lynchburg VA*

their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign its name as surety(ies) only as delineated above by , and to execute, seal and acknowledge any and all bonds, undertakings, contracts and other written instruments in the nature thereof, on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

In Witness Whereof, and as authorized by a Resolution of the Board of Directors of the Companies on May 6, 2015 the Companies have caused these presents to be signed by its Senior Vice President and its corporate seals to be hereto affixed, duly attested by its Assistant Secretary. Further, pursuant to Resolution of the Board of Directors of the Companies, the Companies hereby unambiguously affirm that they are and will be bound by any mechanically applied signatures applied to this Power of Attorney.



Julie Morris

Julie Morris, Assistant Secretary



M. Ross Fisher, Senior Vice President

STATE OF CONNECTICUT }
 COUNTY OF HARTFORD } ss. Hartford

On this 11th day of January 2016, before me personally came M. Ross Fisher, to me known, who being by me duly sworn, did depose and say: that he resides in the County of Hartford, State of Connecticut; that he is the Senior Vice President of the Companies, the corporations described in and which executed the above instrument; that he knows the seals of the said corporations; that the seals affixed to the said instrument are such corporate seals; that they were so affixed by authority of the Boards of Directors of said corporations and that he signed his name thereto by like authority.



CERTIFICATE

Kathleen T. Maynard
 Kathleen T. Maynard
 Notary Public
 My Commission Expires July 31, 2021

I, the undersigned, Assistant Vice President of the Companies, 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 still in full force effective as of *June 9, 2020*
 Signed and sealed at the City of Hartford.



Kevin Heckman

Kevin Heckman, Assistant Vice President

**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 Illinois, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND a corporation of the State of Illinois (herein collectively called the "Companies"), by **ROBERT D. MURRAY, 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 **Deanna W. SPARKS, Theresa S. STUMP, Sherrie B. DENISON, Joel A. NICHOLS and Bethany A. MURPHY, all of Roanoke, Virginia, 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 1st day of July, A.D. 2019.

ATTEST:

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



By: 
*Assistant Secretary
Dawn E. Brown*


*Vice President
Robert D. Murray*

State of Maryland
County of Baltimore

On this 1st day of July, A.D. 2019, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, **ROBERT D. MURRAY, Vice President, and DAWN E. BROWN, Assistant Secretary**, of the Companies, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and acknowledged the execution of same, and being by me duly sworn, deposeth and saith, that he/she is the said officer of the Company aforesaid, and that the seals affixed to the preceding instrument are the Corporate Seals of said Companies, and that the said Corporate Seals and the signature as such officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporations.

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





Constance A. Dunn, Notary Public
My Commission Expires: July 9, 2023

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 9th day of JUNE, 2020



Brian M. Hodges

Brian M. Hodges, Vice President

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

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





APPENDIX 3.2.10
SCC and DPOR Information

ATTACHMENT 3.2.10

State Project No. 0081-080-946

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
Branch Civil, Inc.	02956183	Corporation	Active	442 Rutherford Ave Roanoke, VA 24016	Contractor	2701029434	2021-03-31
ORDERS Construction Company, Inc.	F0268500	Corporation	Active	501 6 th Avenue, St Albans, WV 25177-14448	Contractor	2701032711	2020-08-31
Whitman, Requardt & Associates, LLP (WRA)	K0003824	LLP	Active	100 5 th Street Ste. L2000 Bristol, TN 37620	Branch Office	0411001228	2022-02-28
				1700 Kraft Dr Ste. 1200 Blacksburg, VA 24060	Branch Office	0411000608	2022-02-28
				9030 Stony Point Pkwy, Ste. 220, Richmond, VA 23235	Branch Office	0411000133	2022-02-28
				12700 Fair Lakes Circle, #300, Fairfax, VA 22033	Branch Office	0411000134	2022-02-28
				5701 Cleveland St., Ste. 620, Virginia Beach, VA 23462	Branch Office	0411000908	2022-02-28
				11870 Merchants Walk, Ste. 100, Newport News, VA 23606	Branch Office	0411000244	2022-02-28
				1320 Central Park Blvd., Ste. 224 Fredericksburg, VA 22401	Branch Office	0411000861	2022-02-28
				1705 Enterprise St. Ste. 100, Lynchburg, VA 24502	Branch Office	0411000774	2022-02-28
				801 S Caroline St Baltimore, MD 21231	Business Entity	0407001676	2021-12-21

ATTACHMENT 3.2.10

State Project No. 0081-080-946

SCC and DPOR Information

Rummel, Klepper & Kahl, LLP (RK&K)	K0004178	LLP	Active	10 S Jefferson St, Ste. 1010, Roanoke, VA 24011	Branch Office	0411001468	2022-02-28
				2100 East Cary St., Ste. 309, Richmond, VA 23223	Branch Office	0411000271	2022-02-28
				636 Shelby St. Ste A Bristol, TN 37620	Branch Office	0411001585	2022-02-28
				12600 Fair Lakes Cr., Ste.300, Fairfax, VA 22030	Branch Office	0411000577	2022-02-28
				2901 S. Lynnhaven Rd. Ste. 300, Virginia Beach, VA 23452	Branch Office	0411000667	2022-02-28
				8601 Six Forks Rd., Forum 1, Ste. 700, Raleigh, NC 27615	Branch Office	0411001046	2022-02-28
				700 E Pratt St Ste. 500, Baltimore, MD 21202	Business Entity	0407002860	2021-12-31
Schnabel Engineering, LLC	S0889123	LLC	Active	9800 JEB Stuart Pkwy, Ste. 200, Glen Allen, VA 23059	Business Entity	0407004386	2020-12-31
				1901 S. Main St., Ste 11 Blacksburg VA 24060	Branch Office	0411000323	2022-02-28
				9800 JEB Stuart Pkwy, Ste. 100, Glen Allen, VA 23059	Branch Office	0411000322	2022-02-28
				46020 Manekin Plaza, Ste. 150, Sterling, VA 20166	Branch Office	0411000325	2022-02-28
				480 Four Seasons Dr. Charlottesville, VA 22901	Branch Office	0411000324	2022-02-298
H&B Surveying and Mapping, LLC	S02905604	LLC	Active	614 Moorefield Park Dr. Richmond, VA 23236	Business Entity	0407005432	2021-12-31
				2105 Electric Rd., Ste. 103 Roanoke, VA 24018	Branch Office	0411001268	2022-02-28
Century Engineering, Inc. d/b/a NXL	F1909839	S Corp	Active	10710 Gilroy Road, Hunt Valley, MD 21031	Business Entity	0407006233	2021-12-31
	F1909839	S Corp	Active	106 S. Franklin St, Ste. A2, Christiansburg, VA 24073	Branch Office	0411001493	2022-02-28

ATTACHMENT 3.2.10

State Project No. 0081-080-946

SCC and DPOR Information

ECS Mid-Atlantic, LLC	S1208216	LLC	Active	7670 Enon Drive, Ste. 101 Roanoke, VA 24019	Branch Office	0411000381	2022-02-28
				2119 N Hamilton St. Richmond, VA 23230	Branch Office	0411000384	2022-02-28
SC Stevenson Consulting, Inc.	02527604	S Corporation	Active	1348 S Main Street Blacksburg, VA 24060	Branch Office	0411000482	2022-02-28
KDR Real Estate Services, Inc.	05712104	S Corporation	Active	2500 Grenoble Rd. Richmond, VA 23294	Firm License	0226007129	2020-12-31

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
Branch Civil	Margaret (Maggie) Helen Cossman, PE, DBIA	Roanoke, VA	Forest, VA 24551	Professional Engineer	0402036400	2022-01-31
WRA	Chadwick (Chad) Ryan McMurray, PE, CCM, PMP, DBIA	Bristol, TN	Bristol, VA 37620	Professional Engineer	0402039985	2022-01-31
WRA	Michael (Mike) A. Russell, PE, DBIA	Bristol, TN	Abingdon, VA 24211	Professional Engineer	0402024814	2022-02-28
WRA	Taylor Sigmund Sprenkle, PWD	Richmond, VA	Richmond, VA	Professional Wetland Delineator	3402000097	2020-09-30



SCC INFORMATION FOR ALL TEAM MEMBERS

Commonwealth of Virginia



State Corporation Commission

CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That Branch Civil, Inc. is duly incorporated under the law of the Commonwealth of Virginia;

That the date of its incorporation is November 25, 1986;

That the period of its duration is perpetual; and

That the corporation is in existence and in good standing in the Commonwealth of Virginia as of the date set forth below.

Nothing more is hereby certified.



*Signed and Sealed at Richmond on this Date:
January 16, 2017*

Joel H. Peck

Joel H. Peck, Clerk of the Commission

Entity Information

Entity Name: Branch Civil, Inc.

Entity ID: 02956183

Entity Type: Stock Corporation

Entity Status: **Active**

Formation Date: 11/25/1986

Reason for Status: Active and In Good Standing

VA Qualification Date: 11/25/1986

Status Date: 11/25/1986

Industry Code: 0 - General

Period of Duration: Perpetual

Jurisdiction: VA

Annual Report Due Date: N/A

Registration Fee Due Date: Not Required

Charter Fee: \$0.00

Registered Agent Information

RA Type: Entity

Locality: HENRICO COUNTY

RA Qualification: BUSINESS ENTITY THAT IS AUTHORIZED TO
TRANSACT BUSINESS IN VIRGINIA

Name: C T CORPORATION SYSTEM

Registered Office Address: 4701 Cox Rd Ste 285, Glen Allen, VA, 23060 -
6808, USA

Commonwealth OF Virginia



State Corporation Commission

CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That ORDERS CONSTRUCTION COMPANY, INC., a corporation incorporated under the law of West Virginia, is authorized to transact business in the Commonwealth of Virginia;

That it obtained a certificate of authority to transact business in Virginia from the Commission on July 5, 1973; and

That the corporation is in good standing in the Commonwealth of Virginia as of the date set forth below.

Nothing more is hereby certified.



Signed and Sealed at Richmond on this Date:

June 25, 2013

Joel H. Peck

Joel H. Peck, Clerk of the Commission

Entity Information

Entity Name: ORDERS CONSTRUCTION COMPANY, INC.
Entity ID: F0268500
Entity Type: Stock Corporation
Entity Status: **Active**
Formation Date: N/A
Reason for Status: Active and In Good Standing
VA Qualification Date: 07/05/1973
Status Date: 08/08/2014
Industry Code: 0 - General
Period of Duration: Perpetual
Jurisdiction: WV
Annual Report Due Date: N/A
Registration Fee Due Date: Not Required
Charter Fee: \$2000.00

Registered Agent Information

RA Type: Entity
Locality: HENRICO COUNTY
RA Qualification: BUSINESS ENTITY THAT IS AUTHORIZED TO
TRANSACT BUSINESS IN VIRGINIA
Name: C T CORPORATION SYSTEM
Registered Office Address: 4701 Cox Rd Ste 285, Glen Allen, VA, 23060 - 6808,
USA

Commonwealth OF Virginia



State Corporation Commission

CERTIFICATE OF FACT

I Certify the Following from the Records of the Commission:

On August 10, 2000, Whitman, Requardt & Associates, LLP, a Maryland partnership, filed in the Clerk's Office of the Commission a statement of registration as a foreign registered limited liability partnership.

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

Nothing more is hereby certified.



*Signed and Sealed at Richmond on this Date:
August 9, 2018*

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

Entity Information

Entity Name: WHITMAN, REQUARDT & ASSOCIATES, LLP

Entity ID: K0003824

Entity Type: General Partnership

Entity Status: **Active**

Formation Date: N/A

Reason for Status: GP - LLP Status Only

VA Qualification Date: 08/10/2000

Status Date: 08/10/2000

Industry Code: 0 - General

Period of Duration: N/A

Jurisdiction: MD

Annual Continuation Report Due Date: N/A

Registration Fee Due Date: Not Required

Charter Fee: N/A

LLP Status: Yes

Registered Agent Information

RA Type: Entity

Locality: RICHMOND CITY

RA Qualification: BUSINESS ENTITY THAT IS AUTHORIZED TO
TRANSACT BUSINESS IN VIRGINIA

Name: CORPORATION SERVICE COMPANY

Registered Office Address: 100 Shockoe Slip Fl 2, Richmond, VA, 23219 -
4100, USA

Commonwealth of Virginia



State Corporation Commission

CERTIFICATE OF FACT

I Certify the Following from the Records of the Commission:

On September 25, 2001, a statement of registration as a foreign registered limited liability partnership was filed in the Clerk's Office of the Commission by Rummel, Klepper & Kahl, LLP, a Maryland limited liability partnership.

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

Nothing more is hereby certified.



*Signed and Sealed at Richmond on this Date:
January 12, 2016*

Joel H. Peck

Joel H. Peck, Clerk of the Commission

Entity Information

Entity Name: RUMMEL, KLEPPER & KAHL, LLP

Entity ID: K0004178

Entity Type: General Partnership

Entity Status: **Active**

Formation Date: N/A

Reason for Status: GP - LLP Status Only

VA Qualification Date: 09/25/2001

Status Date: 09/25/2001

Industry Code: 0 - General

Period of Duration: N/A

Jurisdiction: MD

Annual Continuation Report Due Date: N/A

Registration Fee Due Date: Not Required

Charter Fee: N/A

LLP Status: Yes

Registered Agent Information

RA Type: Entity

Locality: HENRICO COUNTY

RA Qualification: BUSINESS ENTITY THAT IS AUTHORIZED TO
TRANSACT BUSINESS IN VIRGINIA

Name: C T CORPORATION SYSTEM

Registered Office Address: 4701 Cox Rd Ste 285, Glen Allen, VA, 23060 - 6808,
USA

Commonwealth of Virginia



State Corporation Commission

CERTIFICATE OF FACT

I Certify the Following from the Records of the Commission:

That Schnabel Engineering, LLC is duly organized as a limited liability company under the law of the Commonwealth of Virginia;

That the date of its organization is December 19, 2002; and

That the limited liability company is in existence in the Commonwealth of Virginia as of the date set forth below.

Nothing more is hereby certified.



*Signed and Sealed at Richmond on this Date:
August 3, 2016*

Joel H. Peck

Joel H. Peck, Clerk of the Commission

Entity Information

Entity Name: Schnabel Engineering, LLC

Entity ID: S0889123

Entity Type: Limited Liability Company

Entity Status: **Active**

Formation Date: 12/19/2002

Reason for Status: Active

VA Qualification Date: 12/19/2002

Status Date: 11/15/2010

Industry Code: 0 - General

Period of Duration: Perpetual

Jurisdiction: VA

Annual Report Due Date: N/A

Registration Fee Due Date: 12/31/2019

Charter Fee: N/A

Registered Agent Information

RA Type: Entity

Locality: HENRICO COUNTY

RA Qualification: BUSINESS ENTITY THAT IS AUTHORIZED TO
TRANSACTION BUSINESS IN VIRGINIA

Name: C T CORPORATION SYSTEM

Registered Office Address: 4701 Cox Rd Ste 285, Glen Allen, VA, 23060 - 6808,
USA

Commonwealth of Virginia



STATE CORPORATION COMMISSION

Richmond, April 27, 2009

This is to certify that the certificate of organization of

H & B Surveying and Mapping, LLC

was this day issued and admitted to record in this office and that the said limited liability company is authorized to transact its business subject to all Virginia laws applicable to the company and its business. Effective date: April 27, 2009



State Corporation Commission

Attest:

Joel H. Beck
Clerk of the Commission

Entity Information

Entity Name: H & B Surveying and Mapping, LLC

Entity ID: S2905604

Entity Type: Limited Liability Company

Entity Status: **Active**

Formation Date: 04/27/2009

Reason for Status: Active

VA Qualification Date: 04/27/2009

Status Date: 04/27/2009

Industry Code: 0 - General

Period of Duration: Perpetual

Jurisdiction: VA

Annual Report Due Date: N/A

Registration Fee Due Date: Not Required

Charter Fee: N/A

Registered Agent Information

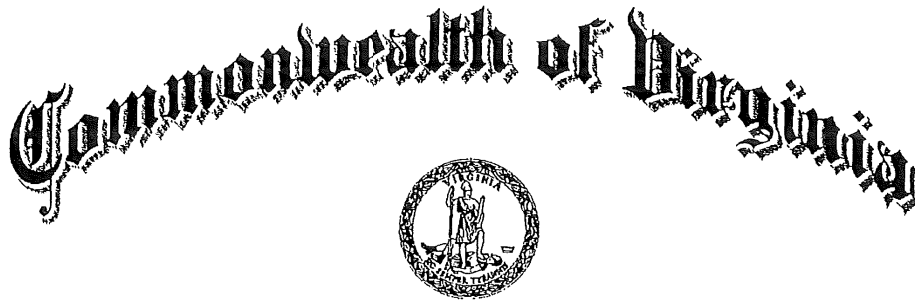
RA Type: Individual

Locality: HENRICO COUNTY

RA Qualification: Member of the Virginia State Bar

Name: TIMOTHY H GUARE

Registered Office Address: TIMOTHY H GUARE PLC, 6802 PARAGON PL STE
100, HENRICO, VA, 23230 - 0000, USA



STATE CORPORATION COMMISSION

Richmond, October 5, 2012

This is to certify that a certificate of authority to transact business in Virginia was this day issued and admitted to record in this office for

Century Engineering Inc., a Maryland based corporation (USED IN VA BY: Century Engineering, I

a corporation organized under the laws of MARYLAND and that the said corporation is authorized to transact business in Virginia, subject to all Virginia laws applicable to the corporation and its business.



State Corporation Commission

Attest:

Joel H. Beck
Clerk of the Commission

Entity Information

Entity Name: Century Engineering Inc., a Maryland based corporation

Entity ID: F1909839

Entity Type: Stock Corporation

Entity Status: **Active**

Formation Date: N/A

Reason for Status: Active and In Good Standing

VA Qualification Date: 10/05/2012

Status Date: 10/05/2012

Industry Code: 0 - General

Period of Duration: Perpetual

Jurisdiction: MD

Annual Report Due Date: N/A

Registration Fee Due Date: Not Required

Charter Fee: \$2500.00

Registered Agent Information

RA Type: Entity

Locality: HANOVER COUNTY

RA Qualification: BUSINESS ENTITY THAT IS AUTHORIZED TO
TRANSACT BUSINESS IN VIRGINIA

Name: INCORP SERVICES, INC.

Registered Office Address: 7288 HANOVER GREEN DRIVE, MECHANICSVILLE,
VA, 23111 - 0000, USA

Commonwealth of Virginia



STATE CORPORATION COMMISSION

Richmond, April 16, 2004

This is to certify that the certificate of organization of

**Engineering Consulting Services - Mid-Atlantic,
LLC**

was this day issued and admitted to record in this office and that the said limited liability company is authorized to transact its business subject to all Virginia laws applicable to the company and its business. Effective date: April 16, 2004



State Corporation Commission

Attest:

Joel H. Beck
Clerk of the Commission

Entity Information

Entity Name: ECS Mid-Atlantic, LLC

Entity ID: S1208216

Entity Type: Limited Liability Company

Entity Status: **Active**

Formation Date: 04/16/2004

Reason for Status: Active

VA Qualification Date: 04/16/2004

Status Date: 04/16/2004

Industry Code: 0 - General

Period of Duration: Perpetual

Jurisdiction: VA

Annual Report Due Date: N/A

Registration Fee Due Date: Not Required

Charter Fee: N/A

Registered Agent Information

RA Type: Individual

Locality: FAIRFAX COUNTY

RA Qualification: Officer or Director of a Corporation that is a Member or Manager of the Limited Liability Company

Name: JAMES A ECKERT

Registered Office Address: 14026 THUNDERBOLT PL STE 100, CHANTILLY, VA, 20151 - 0000, USA

Commonwealth OF Virginia



State Corporation Commission

CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That SC Stevenson Consulting, Inc. is duly incorporated under the law of the Commonwealth of Virginia;

That the corporation was incorporated on February 27, 1984;

That the corporation's period of duration is perpetual; and

That the corporation is in existence and in good standing in the Commonwealth of Virginia as of the date set forth below.

Nothing more is hereby certified.



Signed and Sealed at Richmond on this Date:

February 20, 2020

Joel H. Peck

Joel H. Peck, Clerk of the Commission

Entity Information

Entity Name: SC Stevenson Consulting, Inc.

Entity ID: 02527604

Entity Type: Stock Corporation

Entity Status: **Active**

Formation Date: 02/27/1984

Reason for Status: Active and In Good Standing

VA Qualification Date: 02/27/1984

Status Date: 05/05/2015

Industry Code: 0 - General

Period of Duration: Perpetual

Jurisdiction: VA

Annual Report Due Date: N/A

Registration Fee Due Date: Not Required

Charter Fee: \$200.00

Registered Agent Information

RA Type: Individual

Locality: RICHMOND CITY

RA Qualification: Member of the Virginia State Bar

Name: DAVID SHANE SMITH

Registered Office Address: 1021 E. CARY STREET, SUITE 1700, RICHMOND, VA,
23219 - 0000, USA

Commonwealth of Virginia



STATE CORPORATION COMMISSION

Richmond, January 30, 2002

This is to Certify that the certificate of incorporation of

KDR Real Estate Services, Inc.

was this day issued and admitted to record in this office and that the said corporation is authorized to transact its business subject to all Virginia laws applicable to the corporation and its business. Effective date: January 30, 2002



State Corporation Commission

Attest:

Joel H. Beck

Clerk of the Commission

Entity Information

Entity Name: KDR Real Estate Services, Inc.

Entity ID: 05712104

Entity Type: Stock Corporation

Entity Status: **Active**

Formation Date: 01/30/2002

Reason for Status: Active and In Good Standing

VA Qualification Date: 01/30/2002

Status Date: 07/07/2003

Industry Code: 0 - General

Period of Duration: Perpetual

Jurisdiction: VA

Annual Report Due Date: N/A

Registration Fee Due Date: Not Required

Charter Fee: \$50.00

Registered Agent Information

RA Type: Individual

Locality: HENRICO COUNTY

RA Qualification: Officer of the Corporation

Name: ALLEN G DORIN JR

Registered Office Address: 2500 GRENOBLE RD, RICHMOND, VA, 23294 -
0000, USA

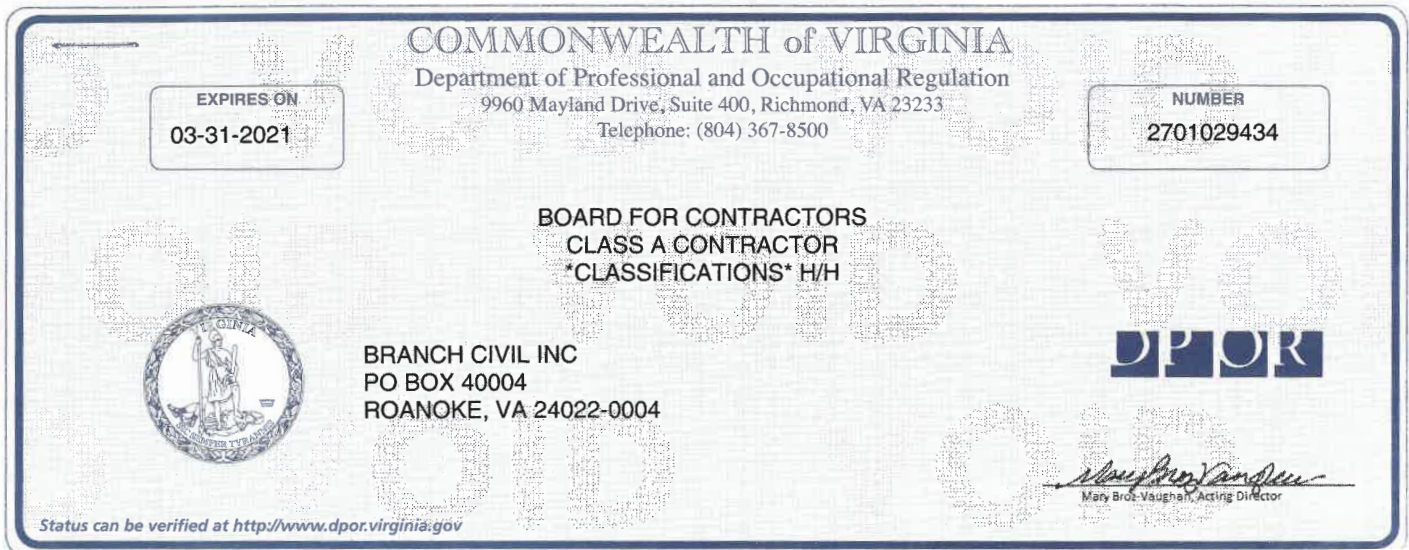


**DPOR INFORMATION FOR ALL TEAM
MEMBERS**

DPOR License Lookup License Number 2701029434

License Details

Name	BRANCH CIVIL INC
License Number	2701029434
License Description	Contractor
Firm Type	Corporation
Rank ¹	Class A
Address	442 RUTHERFORD AVE, ROANOKE, VA 24016
Specialties²	Highway / Heavy (H/H)
Initial Certification Date	1987-03-12
Expiration Date	2021-03-31



DPOR License Lookup License Number 2701032711

License Details

Name	ORDERS CONSTRUCTION COMPANY INC
License Number	2701032711
License Description	Contractor
Firm Type	Corporation
Rank ¹	Class A
Address	501 6TH AVENUE, ST ALBANS, WV 25177-1448
Specialties²	Highway / Heavy (H/H)
Initial Certification Date	1988-08-22
Expiration Date	2020-08-31

COMMONWEALTH of VIRGINIA Department of Professional and Occupational Regulation 9960 Mayland Drive, Suite 400, Richmond, VA 23233 Telephone: (804) 367-8500		
EXPIRES ON 08-31-2020		NUMBER 2701032711
BOARD FOR CONTRACTORS CLASS A CONTRACTOR *CLASSIFICATIONS* H/H		
	ORDERS CONSTRUCTION COMPANY INC 501 6TH AVENUE ST ALBANS, WV 25177-1448	
<small>Status can be verified at http://www.dpor.virginia.gov</small>		 <small>Jay W. DeBoer, Director</small>

DPOR License Lookup License Number 0411001228

License Details

Name	WHITMAN, REQUARDT AND ASSOCIATES LLP
License Number	0411001228
License Description	Business Entity Branch Office Registration
Rank	Business Entity Branch Office
Address	100 5TH ST STE L2000, BRISTOL, TN 37620
Initial Certification Date	2015-11-06
Expiration Date	2022-02-28

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


EXPIRES ON
02-28-2022


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






Mary Eroz-Vaughan, Director




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

DPOR License Lookup License Number 0411000608

License Details

Name	WHITMAN REQUARDT & ASSOCIATES LLP
License Number	0411000608
License Description	Business Entity Branch Office Registration
Rank	Business Entity Branch Office
Address	1700 KRAFT DRIVE SUITE 1200, BLACKSBURG, VA 24060
Initial Certification Date	2009-07-20
Expiration Date	2022-02-28

4

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Department of Professional and Occupational Regulation 9960 Mayland Drive, Suite 400, Richmond, VA 23233 Telephone: (804) 367-8500	
EXPIRES ON 02-28-2022	NUMBER 0411000608
BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS AND LANDSCAPE ARCHITECTS BUSINESS ENTITY BRANCH OFFICE REGISTRATION	
PROFESSIONS - ENG 	WHITMAN REQUARDT & ASSOCIATES LLP 1700 KRAFT DRIVE SUITE 1200 BLACKSBURG, VA 24060
	
 Mary Broz-Veugman, Director	
Status can be verified at http://www.dpor.virginia.gov	

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

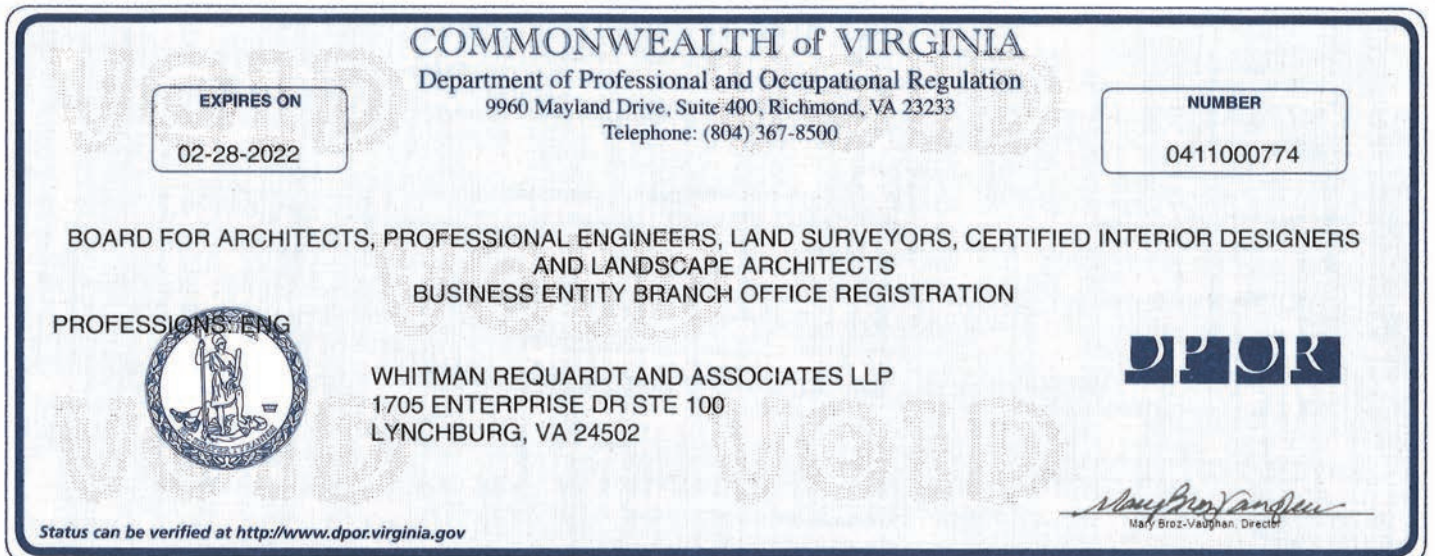
DPOR-LIC (02/2017)

DPOR License Lookup License Number 0411000774

License Details

Name	WHITMAN REQUARDT AND ASSOCIATES LLP
License Number	0411000774
License Description	Business Entity Branch Office Registration
Rank	Business Entity Branch Office
Address	1705 ENTERPRISE DR STE 100, LYNCHBURG, VA 24502
Initial Certification Date	2010-11-15
Expiration Date	2022-02-28

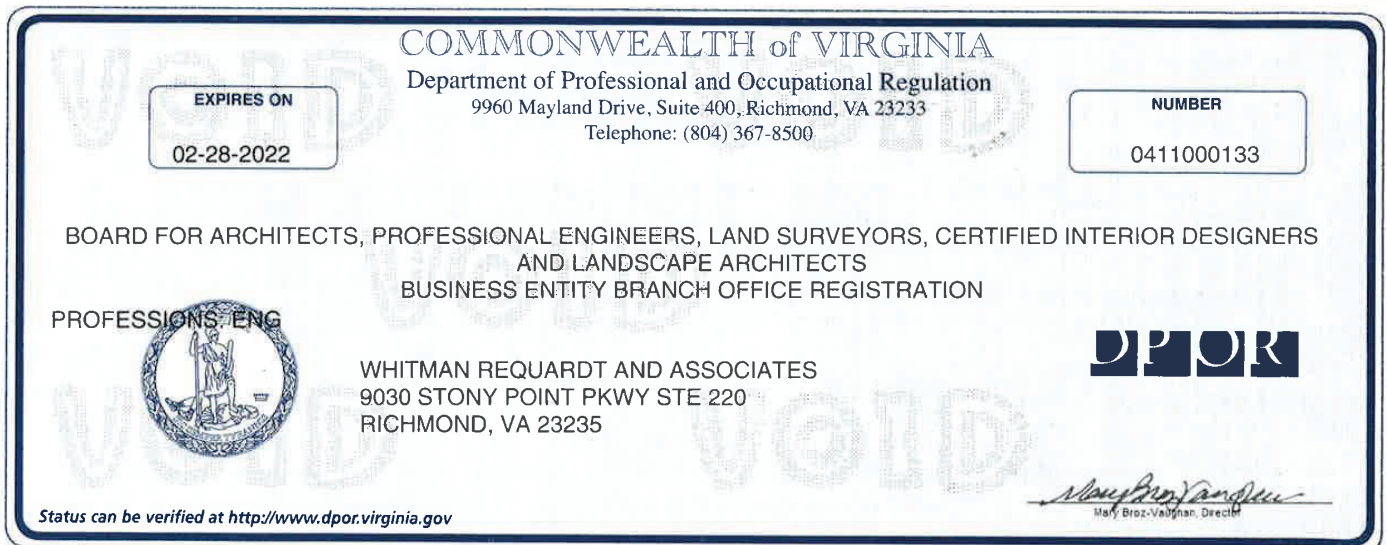
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DPOR License Lookup License Number 0411000133

License Details

Name	WHITMAN REQUARDT AND ASSOCIATES
License Number	0411000133
License Description	Business Entity Branch Office Registration
Rank	Business Entity Branch Office
Address	9030 STONY POINT PKWY STE 220, RICHMOND, VA 23235
Initial Certification Date	1996-11-12
Expiration Date	2022-02-28

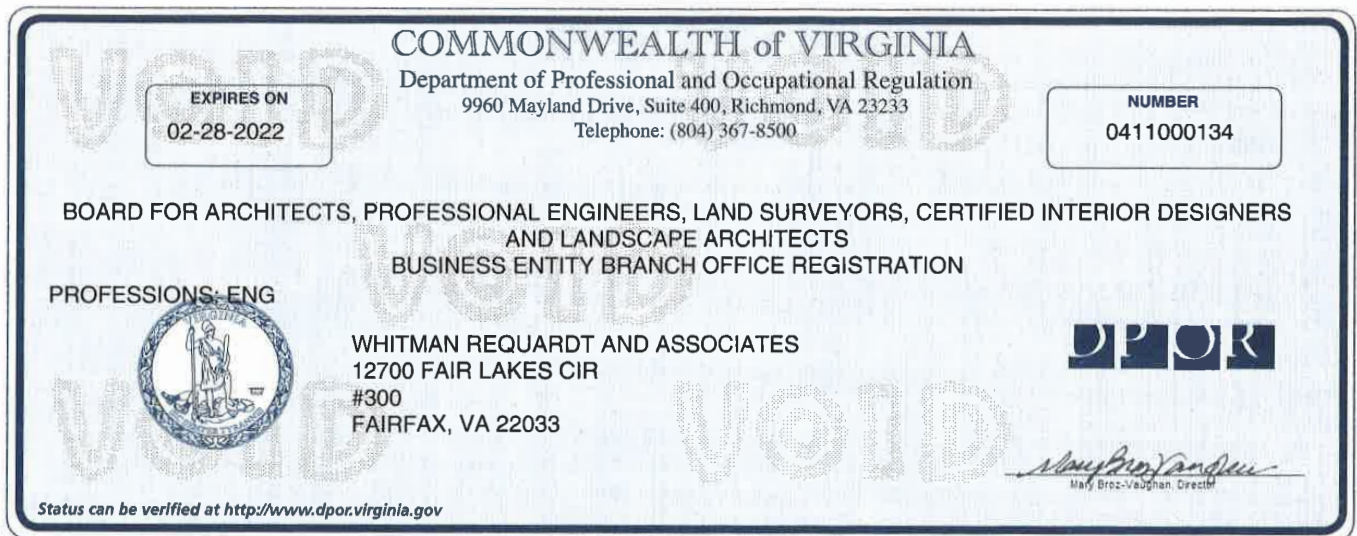


DPOR License Lookup License Number 0411000134

License Details

Name	WHITMAN REQUARDT AND ASSOCIATES
License Number	0411000134
License Description	Business Entity Branch Office Registration
Business Type	Corporation
Rank	Business Entity Branch Office
Address	12700 FAIR LAKES CIR #300, FAIRFAX, VA 22033
Initial Certification Date	1996-11-12
Expiration Date	2022-02-28

4



DPOR License Lookup License Number 0411000908

License Details

Name	WHITMAN, REQUARDT AND ASSOCIATES LLP
License Number	0411000908
License Description	Business Entity Branch Office Registration
Rank	Business Entity Branch Office
Address	5701 CLEVELAND STREET SUITE 620, VIRGINIA BEACH, VA 23462
Initial Certification Date	2012-02-29
Expiration Date	2022-02-28

4

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PROFESSIONS: ENG

WHITMAN, REQUARDT AND ASSOCIATES LLP
5701 CLEVELAND STREET
SUITE 620
VIRGINIA BEACH, VA 23462

DPOR

Mary Broz-Vaughan
Mary Broz-Vaughan, Director

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

DPOR License Lookup License Number 0411000244

License Details


Name	WHITMAN REQUARDT & ASSOCIATES LLP
License Number	0411000244
License Description	Business Entity Branch Office Registration
Business Type	Partnership
Rank	Business Entity Branch Office
Address	11870 MERCHANTS WALK STE 100, NEWPORT NEWS, VA 23606
Initial Certification Date	2000-08-15

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Telephone: (804) 367-8500



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BUSINESS ENTITY BRANCH OFFICE REGISTRATION

PROFESSIONS: ENG



WHITMAN REQUARDT & ASSOCIATES LLP
11870 MERCHANTS WALK STE 100
NEWPORT NEWS, VA 23606



Mary Broz-Vaughan, Director

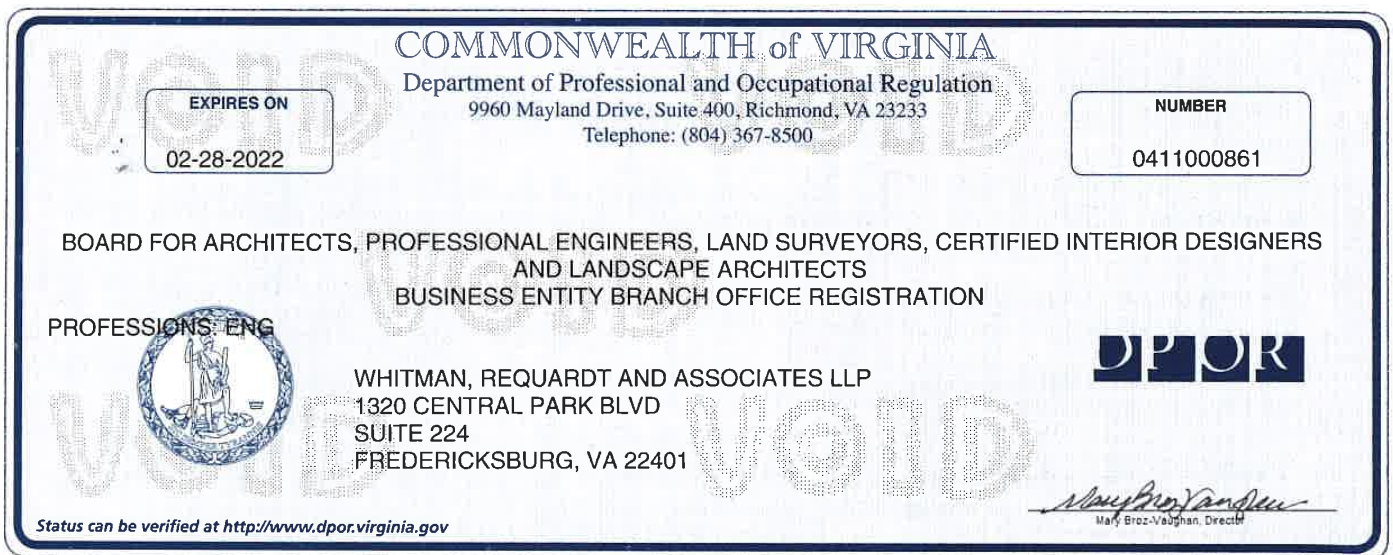
Status can be verified at <http://www.dpor.virginia.gov>

DPOR License Lookup License Number 0411000861

License Details

Name	WHITMAN, REQUARDT AND ASSOCIATES LLP
License Number	0411000861
License Description	Business Entity Branch Office Registration
Rank	Business Entity Branch Office
Address	1320 CENTRAL PARK BLVD SUITE 224, FREDERICKSBURG, VA 22401
Initial Certification Date	2011-08-25
Expiration Date	2022-02-28

4



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PROFESSIONS: ENG

WHITMAN, REQUARDT AND ASSOCIATES LLP
1320 CENTRAL PARK BLVD
SUITE 224
FREDERICKSBURG, VA 22401





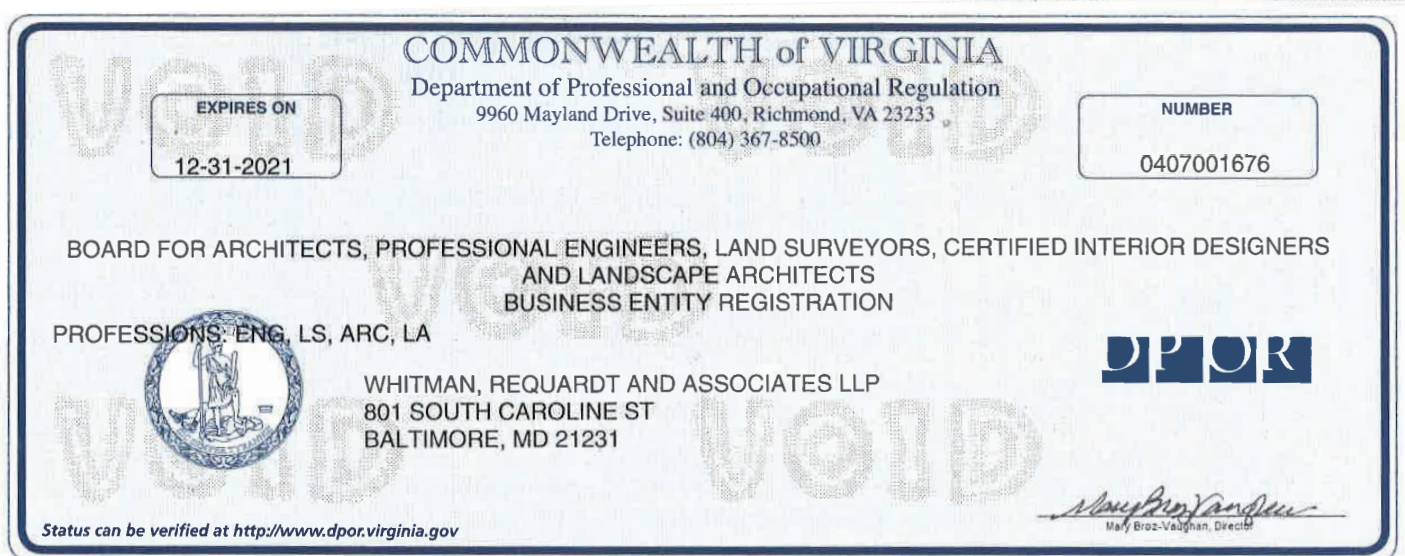
Mary Brez-Vaughan
Mary Brez-Vaughan, Director

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

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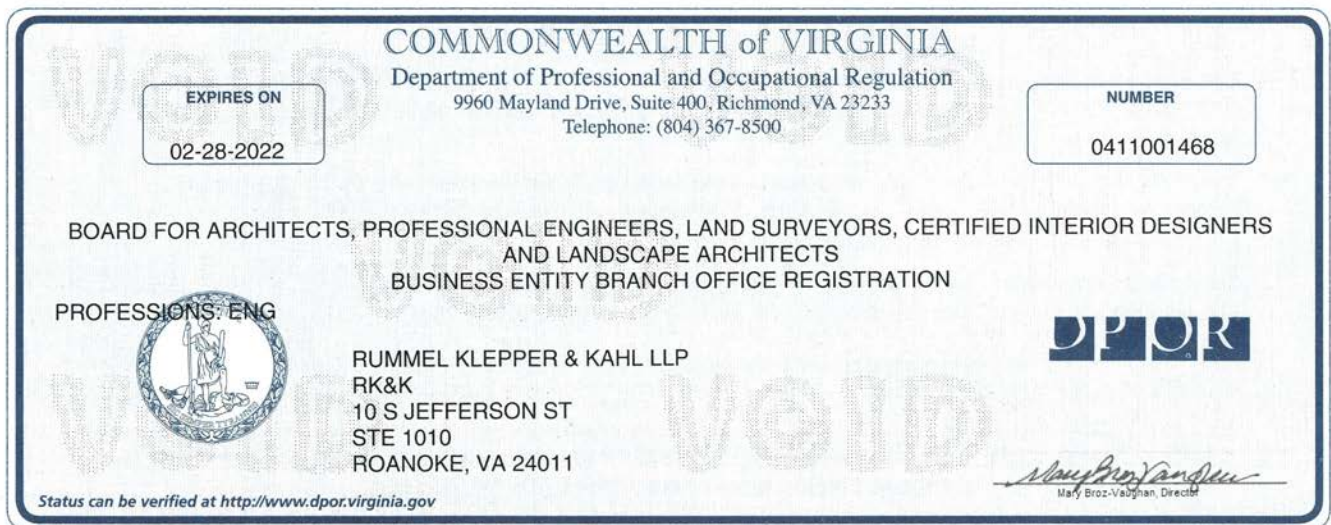
Name	WHITMAN, REQUARDT AND ASSOCIATES LLP
License Number	0407001676
License Description	Business Entity Registration
Rank	Business Entity
Address	801 SOUTH CAROLINE ST, BALTIMORE, MD 21231
Initial Certification Date	1982-09-03
Expiration Date	2021-12-31



DPOR License Lookup License Number 0411001468

License Details

Name	RUMMEL KLEPPER & KAHL LLP
DBA Name	RK&K
License Number	0411001468
License Description	Business Entity Branch Office Registration
Rank	Business Entity Branch Office
Address	10 S JEFFERSON ST STE 1010, ROANOKE, VA 24011
Initial Certification Date	2018-12-05



DPOR License Lookup License Number 0411000271

License Details

Name	RUMMEL KLEPPER & KAHL LLP
DBA Name	RK&K
License Number	0411000271
License Description	Business Entity Branch Office Registration
Rank	Business Entity Branch Office
Address	2100 EAST CARY ST SUITE 309, RICHMOND, VA 23223
Initial Certification Date	2001-10-19
Expiration Date	2022-02-28



DPOR License Lookup License Number 0411001585

License Details

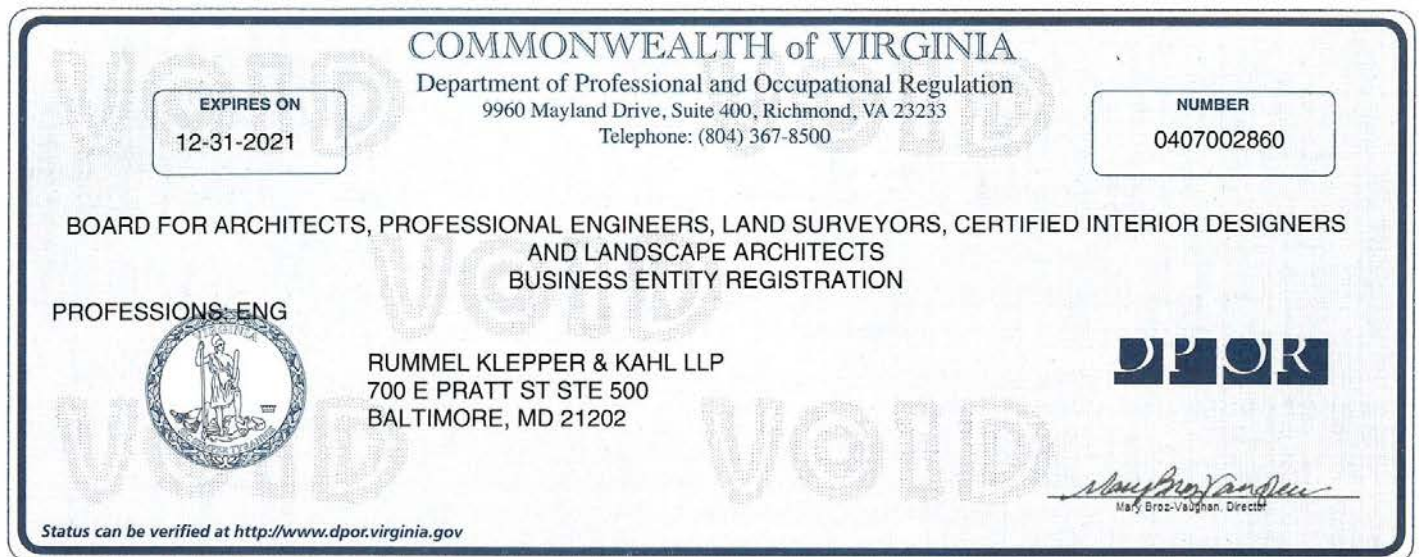
Name	RUMMEL KLEPPER & KAHL LLP
License Number	0411001585
License Description	Business Entity Branch Office Registration
Rank	Business Entity Branch Office
Address	636 SHELBY ST STE 1A, BRISTOL, TN 37620
Initial Certification Date	2020-06-25
Expiration Date	2022-02-28



DPOR License Lookup License Number 0407002860

License Details

Name	RUMMEL KLEPPER & KAHL LLP
License Number	0407002860
License Description	Business Entity Registration
Rank	Business Entity
Address	700 E PRATT ST STE 500, BALTIMORE, MD 21202
Initial Certification Date	1988-03-29
Expiration Date	2021-12-31



DPOR License Lookup License Number 0411000577

License Details

Name	RUMMEL KLEPPER & KAHL LLP
DBA Name	RK&K
License Number	0411000577
License Description	Business Entity Branch Office Registration
Rank	Business Entity Branch Office
Address	12600 FAIR LAKES CIR, STE 300, FAIRFAX, VA 22030
Initial Certification Date	2009-03-26
Expiration Date	2022-02-28



DPOR License Lookup License Number 0411000667

License Details

Name	RUMMEL KLEPPER & KAHL LLP
License Number	0411000667
License Description	Business Entity Branch Office Registration
Rank	Business Entity Branch Office
Address	2901 S. LYNNHAVEN ROAD SUITE 300, VIRGINIA BEACH, VA 23452
Initial Certification Date	2009-09-24
Expiration Date	2022-02-28

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BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS
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PROFESSIONS: ENG



RUMMEL KLEPPER & KAHL LLP
2901 S. LYNNHAVEN RD
SUITE 300
VIRGINIA BEACH, VA 23452



Mary Broz-Vaughan, Director

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

DPOR License Lookup License Number 0411001046

License Details

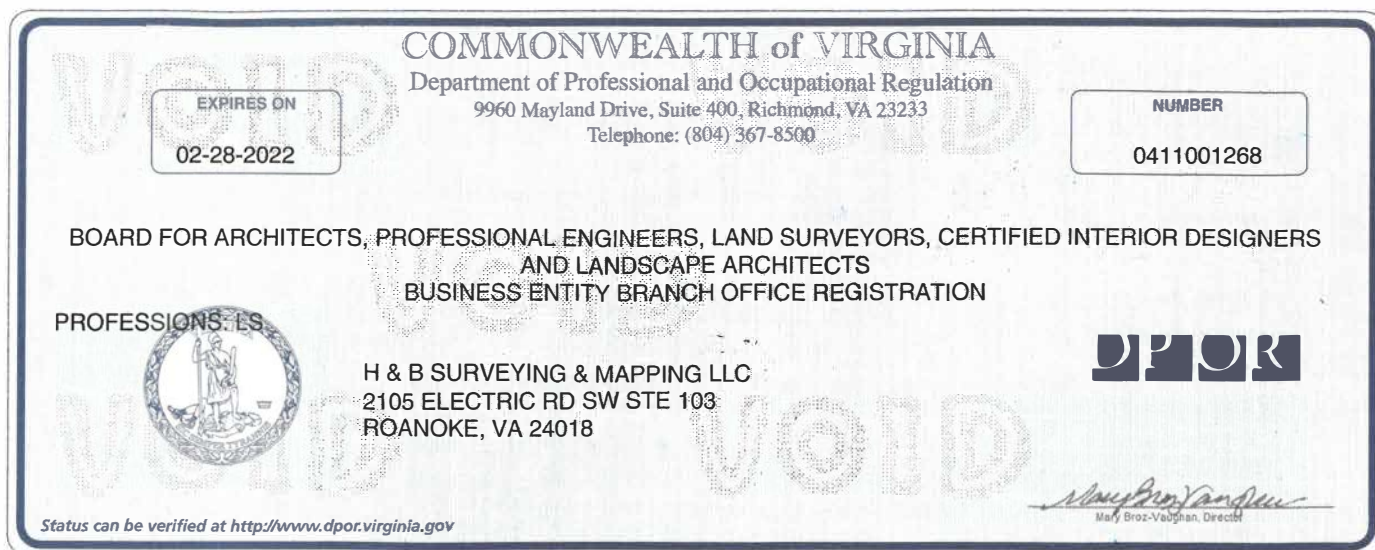
Name	RUMMEL KLEPPER & KAHL LLP
License Number	0411001046
License Description	Business Entity Branch Office Registration
Rank	Business Entity Branch Office
Address	8601 SIX FORKS RD FORUM 1 STE 700, RALEIGH, NC 27615
Initial Certification Date	2013-11-08
Expiration Date	2022-02-28



DPOR License Lookup License Number 0411001268

License Details

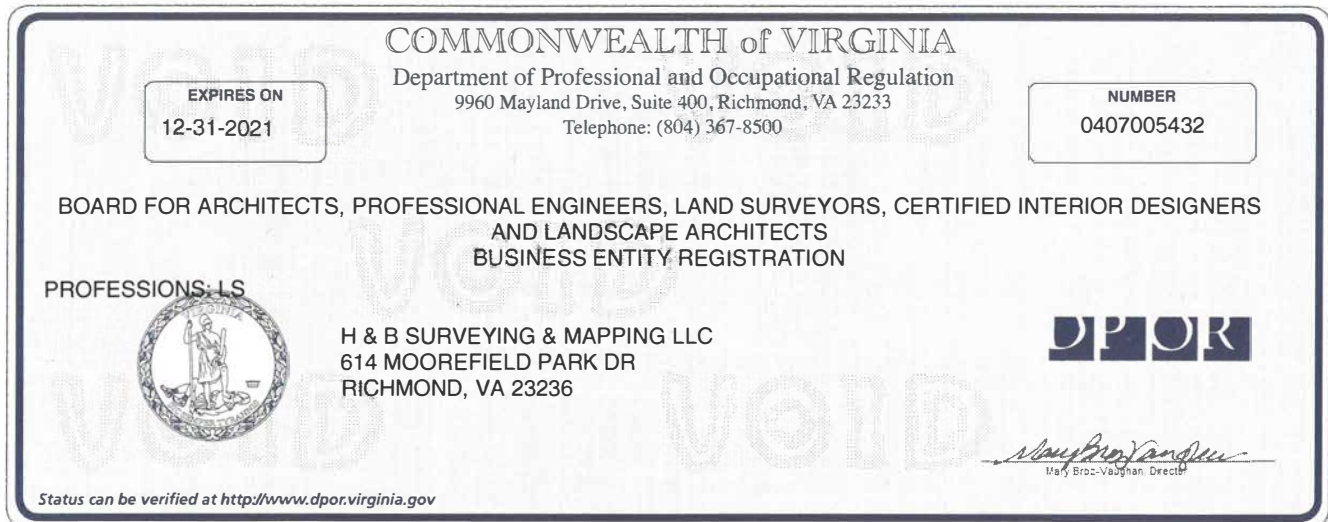
Name	H & B SURVEYING & MAPPING LLC
License Number	0411001268
License Description	Business Entity Branch Office Registration
Rank	Business Entity Branch Office
Address	2105 ELECTRIC RD SW STE 103, ROANOKE, VA 24018
Initial Certification Date	2016-03-31
Expiration Date	2022-02-28



DPOR License Lookup License Number 0407005432

License Details

Name	H & B SURVEYING & MAPPING LLC
License Number	0407005432
License Description	Business Entity Registration
Rank	Business Entity
Address	614 MOOREFIELD PARK DR, RICHMOND, VA 23236
Initial Certification Date	2009-05-05
Expiration Date	2021-12-31



DPOR License Lookup License Number 0411000323

License Details

Name	SCHNABEL ENGINEERING, LLC
License Number	0411000323
License Description	Business Entity Branch Office Registration
Business Type	LLC - Limited Liability Company
Rank	Business Entity Branch Office
Address	1901 SOUTH MAIN ST STE 11, BLACKSBURG, VA 24060
Initial Certification Date	2003-04-18
Expiration Date	2022-02-28



DPOR License Lookup License Number 0411000322

License Details

Name	SCHNABEL ENGINEERING, LLC
License Number	0411000322
License Description	Business Entity Branch Office Registration
Business Type	LLC - Limited Liability Company
Rank	Business Entity Branch Office
Address	9800 JEB STUART PKWY STE 100, GLEN ALLEN, VA 23059
Initial Certification Date	2003-04-16
Expiration Date	2022-02-28


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PROFESSIONAL ENGINEERS

 SCHNABEL ENGINEERING, LLC
9800 JEB STUART PKWY STE 100
GLEN ALLEN, VA 23059

DPOR


Mary Groz-Valghan, Director

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

DPOR License Lookup License Number 0411000325

License Details

Name	SCHNABEL ENGINEERING, LLC
License Number	0411000325
License Description	Business Entity Branch Office Registration
Business Type	LLC - Limited Liability Company
Rank	Business Entity Branch Office
Address	46020 MANEKIN PLAZA SUITE 150, STERLING, VA 20166
Initial Certification Date	2003-04-16
Expiration Date	2022-02-28

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PROFESSIONS - ENG



SCHNABEL ENGINEERING, LLC
46020 MANEKIN PLAZA SUITE 150
STERLING, VA 20166



Mary Brock-Vaughan
Mary Brock-Vaughan, Director

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

DPOR License Lookup License Number 0411000324

License Details

Name	SCHNABEL ENGINEERING, LLC
License Number	0411000324
License Description	Business Entity Branch Office Registration
Business Type	LLC - Limited Liability Company
Rank	Business Entity Branch Office
Address	480 FOUR SEASONS DRIVE, CHARLOTTESVILLE, VA 22901
Initial Certification Date	2003-04-16
Expiration Date	2022-02-28



DPOR License Lookup License Number 0407004386

License Details

Name	SCHNABEL ENGINEERING, LLC
License Number	0407004386
License Description	Business Entity Registration
Firm Type	LLC - Limited Liability Company
Rank	Business Entity
Address	9800 JEB STUART PKWY STE 200, GLEN ALLEN, VA 23059
Initial Certification Date	2003-03-10
Expiration Date	2021-12-31

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Department of Professional and Occupational Regulation
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Telephone: (804) 367-8500

EXPIRES ON
12-31-2021

NUMBER
0407004386

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

PROFESSIONS: ENG



SCHNABEL ENGINEERING, LLC
9800 JEB STUART PKWY STE 200
GLEN ALLEN, VA 23059



Mary Broz-Vaughan
Mary Broz-Vaughan, Director

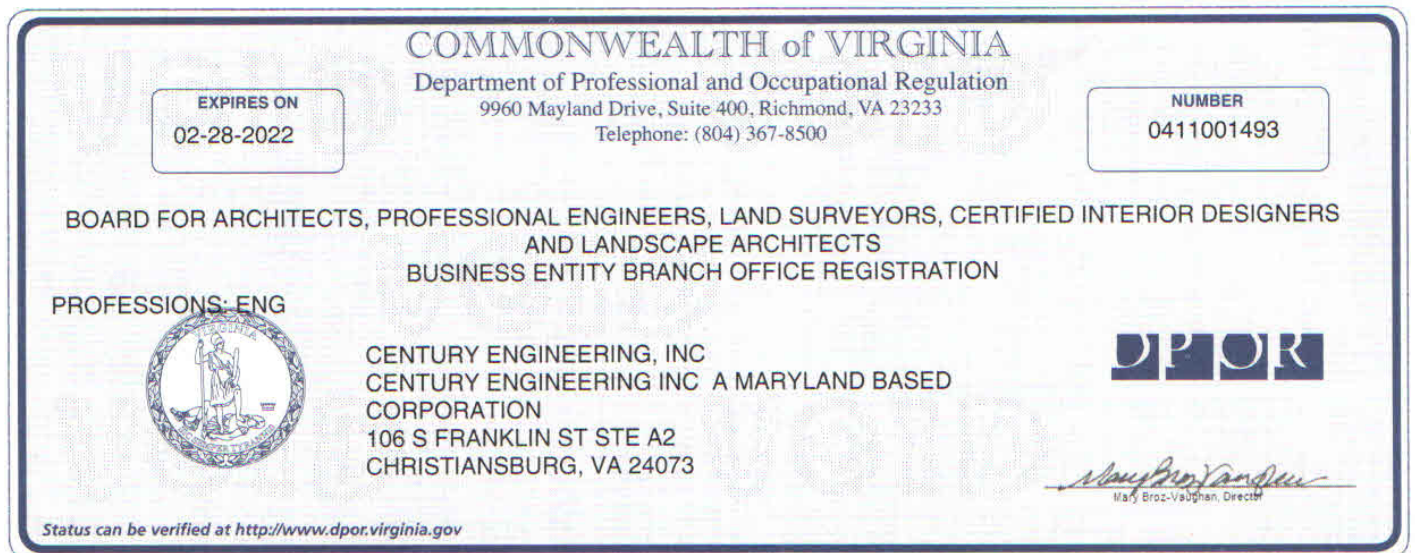
Status can be verified at <http://www.dpor.virginia.gov>

DPOR LIC 102/2017

DPOR License Lookup License Number 0411001493

License Details




Name	CENTURY ENGINEERING, INC
DBA Name	CENTURY ENGINEERING INC A MARYLAND BASED CORPORATION
License Number	0411001493
License Description	Business Entity Branch Office Registration
Business Type	Corporation
Rank	Business Entity Branch Office
Address	106 S FRANKLIN ST STE A2, CHRISTIANSBURG, VA 24073
Initial Certification Date	2019-04-25
Expiration Date	2022-02-28



DPOR License Lookup License Number 0407006223

License Details

Name	CENTURY ENGINEERING, INC
DBA Name	CENTURY ENGINEERING INC A MARYLAND BASED CORPORATION
License Number	0407006223
License Description	Business Entity Registration
Firm Type	Corporation
Rank	Business Entity
Address	10710 GILROY RD, HUNT VALLEY, MD 21031
Initial Certification Date	2012-12-18
Expiration Date	2021-12-31

COMMONWEALTH of VIRGINIA Department of Professional and Occupational Regulation 9960 Mayland Drive, Suite 400, Richmond, VA 23233 Telephone: (804) 367-8500		
EXPIRES ON 12-31-2019		NUMBER 0407006223
BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS AND LANDSCAPE ARCHITECTS BUSINESS ENTITY REGISTRATION		
PROFESSIONS: ENG	CENTURY ENGINEERING, INC 10710 GILROY RD HUNT VALLEY, MD 21031	
		 Jay W. DeBoer, Director
Status can be verified at http://www.dpor.virginia.gov		

DPOR License Lookup License Number 0411000381

License Details

Name	ECS-MID-ATLANTIC LLC
License Number	0411000381
License Description	Business Entity Branch Office Registration
Rank	Business Entity Branch Office
Address	7670 ENON DR STE 101, ROANOKE, VA 24019
Initial Certification Date	2004-12-10
Expiration Date	2022-02-28



DPOR License Lookup License Number 0411000384

License Details

Name	ECS MID-ATLANTIC LLC
License Number	0411000384
License Description	Business Entity Branch Office Registration
Rank	Business Entity Branch Office
Address	2119-D NORTH HAMILTON ST, RICHMOND, VA 23230
Initial Certification Date	2004-12-10
Expiration Date	2022-02-28

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

EXPIRES ON
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NUMBER
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BOARD FOR ARCHITECTS, PROFESSIONAL ENGINEERS, LAND SURVEYORS, CERTIFIED INTERIOR DESIGNERS
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PROFESSIONS: ARC, ENG

 ECS MID-ATLANTIC LLC
2119-D NORTH HAMILTON ST
RICHMOND, VA 23230



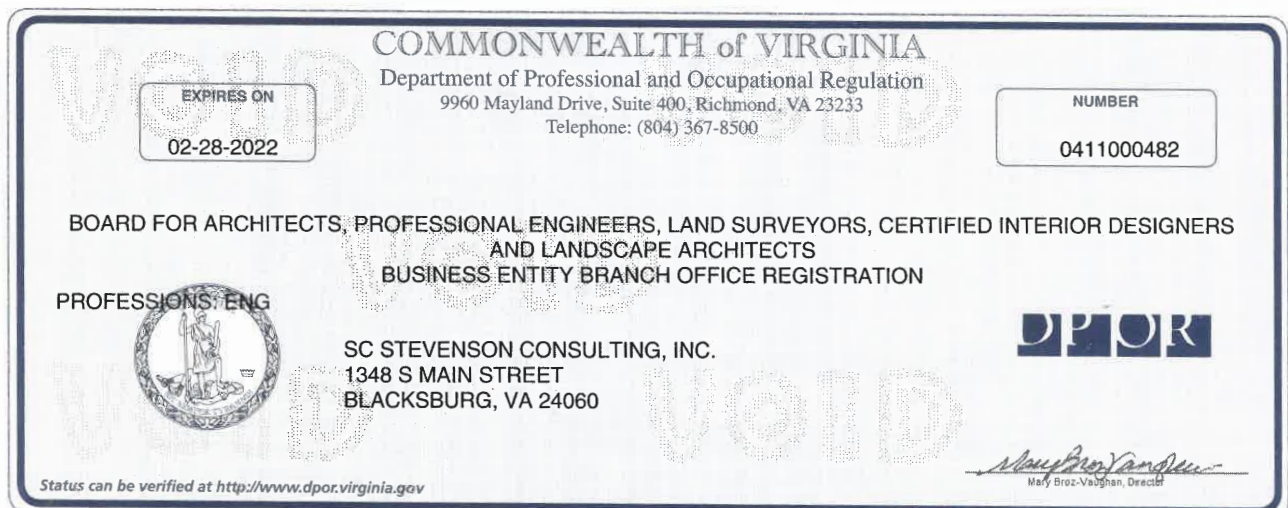

Mary Broz-Vaughan, Director

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

DPOR License Lookup License Number 0411000482

License Details

Name	SC STEVENSON CONSULTING, INC.
License Number	0411000482
License Description	Business Entity Branch Office Registration
Rank	Business Entity Branch Office
Address	1348 S MAIN STREET, BLACKSBURG, VA 24060
Initial Certification Date	2007-05-21
Expiration Date	2022-02-28

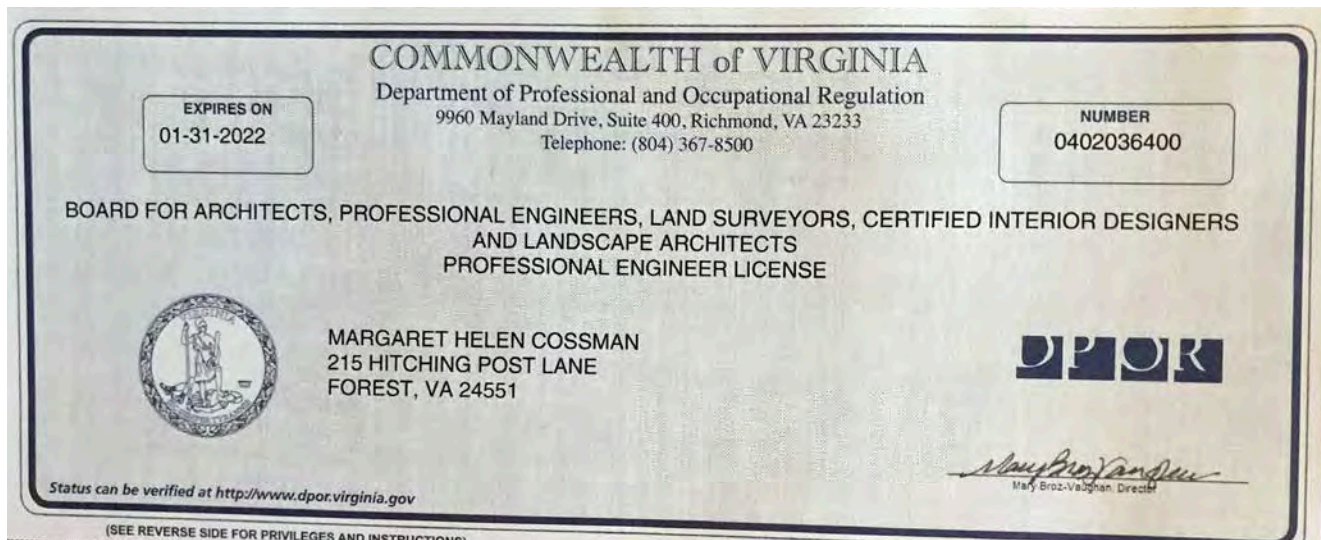


DPOR INFORMATION FOR PERSONNEL

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License Details

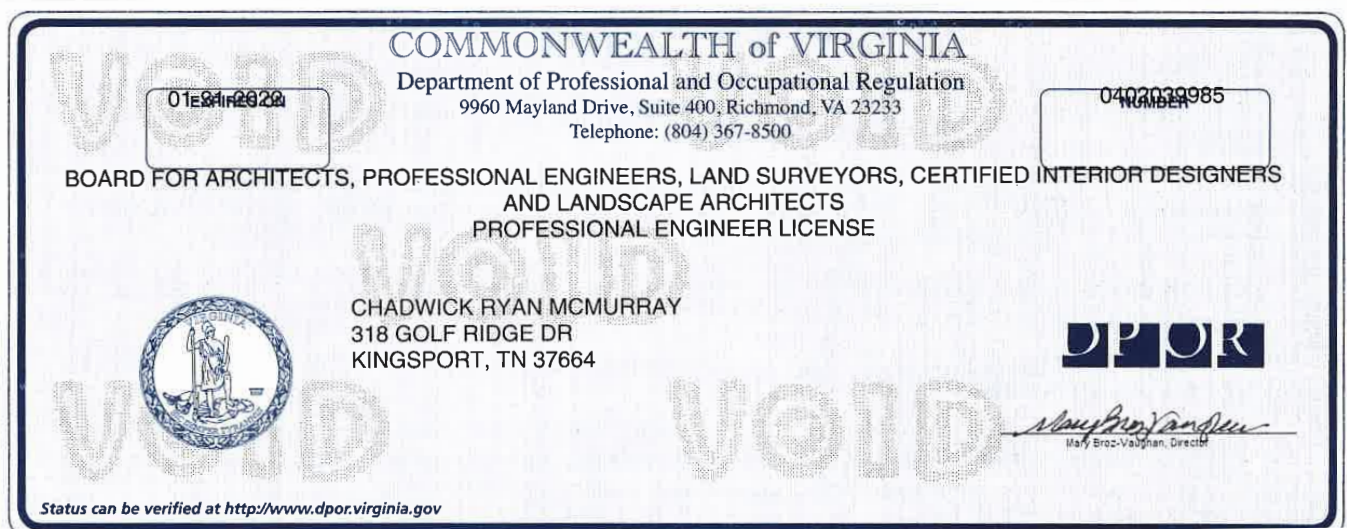
Name	COSSMAN, MARGARET HELEN
License Number	0402036400
License Description	Professional Engineer License
Rank	Professional Engineer
Address	FOREST, VA 24551
Initial Certification Date	2002-01-08
Expiration Date	2022-01-31



DPOR License Lookup License Number 0402039985

License Details

Name	MCMURRAY, CHADWICK RYAN
License Number	0402039985
License Description	Professional Engineer License
Rank	Professional Engineer
Address	BRISTOL, TN 37620
Initial Certification Date	2004-07-08
Expiration Date	2022-01-31



DPOR License Lookup License Number 0402024814

License Details


Name	RUSSELL, MICHAEL A
License Number	0402024814
License Description	Professional Engineer License
Rank	Professional Engineer
Address	ABINGDON, VA 24211
Initial Certification Date	1994-02-07
Expiration Date	2022-02-28


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


EXPIRES ON
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NUMBER
0402024814

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AND LANDSCAPE ARCHITECTS
PROFESSIONAL ENGINEER LICENSE


MICHAEL A RUSSELL
17282 CLEVELAND RD
ABINGDON, VA 24211



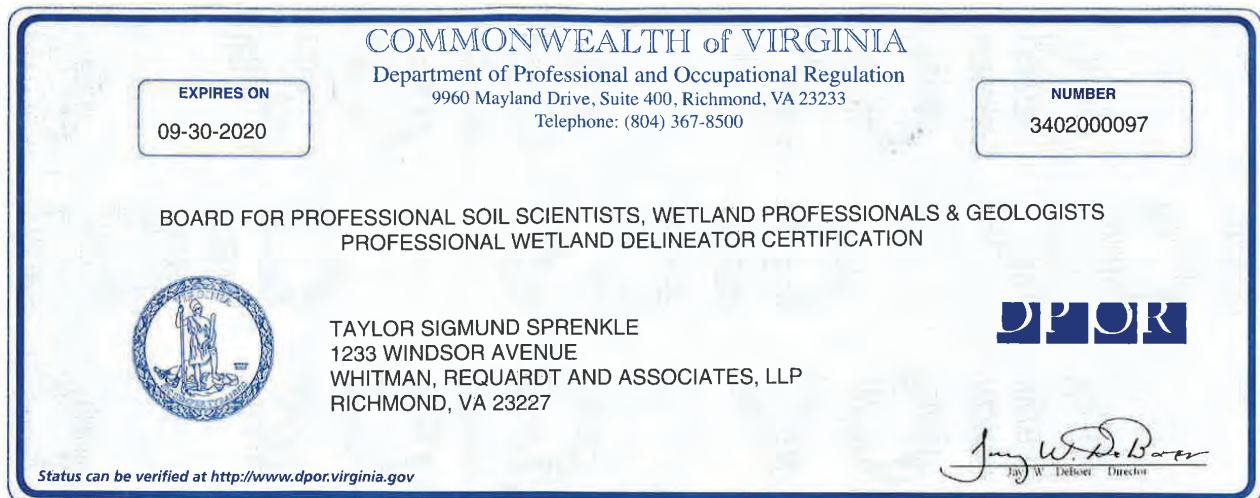

Mary Broz-Vaughan, Director

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

DPOR License Lookup License Number 3402000097

License Details

Name	SPRENKLE, TAYLOR SIGMUND
License Number	3402000097
License Description	Professional Wetland Delineator Certification
Rank	Professional Wetland Delineator
Address	RICHMOND, VA 23227
Initial Certification Date	2008-09-05
Expiration Date	2020-09-30





APPENDIX 3.3.1
Key Personnel Resume Forms



ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.
a. Name & Title: M. JEFF HUMPHREYS, JR., DBIA Project Executive
b. Project Assignment: Design-Build Project Manager (DBPM)
c. Name of the Firm with which you are employed at the time of submitting SOQ.: Branch Civil, Inc.
d. Employment History: With this Firm <u>3</u> Years With Other Firms <u>37</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): Branch Civil, Inc. Project Executive 2017 – Present: Jeff works with project teams prior to beginning work to develop a plan of operation to ensure success for each project. His involvement with the project continues throughout construction until project completion. His responsibilities include oversight of the relationship with the owner, subcontractors, and suppliers. Jeff monitors each project to ensure construction is in accordance with the schedule and contract. When change orders or revisions to the contract occur, Jeff oversees the Project Manager and Superintendent on needed actions and ultimately ensures communication lines with all appropriate stakeholders. Additionally, Jeff ensures that construction schedules are developed, base-lined, monitored and updated. Jeff establishes an appropriate construction budget for each project and ensures that all materials meet contract requirements and quality standards. Allan Myers DBPM/Senior Estimator 2009 – 2017: Responsibilities consisted of overall management of the design and construction process, including project planning, scheduling work activities, engineering, submittals, pay estimates, profit and loss, and safety. Joseph B. Fay Company Senior Estimator/General Superintendent 2005 – 2009: Responsible for project procurement, estimating, project management, scheduling, negotiations, recruitment, owner and public relations, and the safe and successful project delivery for the Mid-Atlantic Division. Gemini Drilling & Foundations – District Superintendent 2005 – 2005: Responsible for the safe and successful development, operation, and profit of all corporate projects. He successfully completed drilled shaft construction activities on various VDOT, NCDOT, and SCDOT projects.
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: Nelson County High School Lovingsston, VA 1980 General Studies and Building Trades Penn State University State College, PA 1986 2 CEU's in Supervisor Training Virginia Polytechnic Institute and State University Blacksburg, VA 2019 Transportation Construction Management Institute (Certificate)
f. Active Registration: Year First Registered/ Discipline/VA Registration #: 1994 VDOT Erosion & Sediment Control Contractor Contract Certification #1-04983 2013 Designated Design-Build Professional (National Designation) #D-1534
g. Document the extent and depth of your experience and qualifications relevant to the Project. <ol style="list-style-type: none">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> (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.) I-64 WIDENING EXIT 200 TO 205 D-B HENRICO AND NEW KENT COUNTIES, VA Project Role: Design-Build Project Manager Dates: 2017 – 2019 With Current Firm: Yes Responsibility/Specific Job Duties: Responsible for overall design and construction of this VDOT D-B project and authorized representative for the Design-Builder. Oversaw the design, construction quality, coordination, right of way (ROW) acquisitions, utility relocation activities, permitting and environmental monitoring, QA/QC procedures and implementation and construction management. This project improves the serviceability and safety of the I-64 corridor for the traveling public by widening the existing roadway

while maintaining the existing travel lanes. He led the project team in partnering with VDOT and third-party stakeholders and additionally was responsible for subcontractor and supplier procurement, project tracking and reporting. **Jeff worked with Construction Manager Bob Cross on this project. Client:** VDOT **Similarities to the I-81 Project:** VDOT D-B project; roadway; survey; hydraulics; ROW acquisitions; signing and pavement markings; SWM and erosion and sediment control; retaining walls; environmental; bridge construction and pier protection; utility relocations; geotechnical; traffic control devices; TMP; public involvement/relations; third-party/stakeholder coordination; QA/QC; construction engineering and inspection; and project management.

I-581/ELM AVENUE INTERCHANGE IMPROVEMENTS D-B | ROANOKE, VA

Project Role: Design-Build Project Manager | **Dates:** 2012 –2015 | **With Current Firm:** No

Responsibility/Specific Job Duties: Jeff oversaw design, construction, and QA/QC of this VDOT D-B project that consisted of the widening and reconstruction of the Elm Avenue bridges over I-581 and Norfolk Southern Railway; I-581 off-ramp improvements; and improvements to Elm Avenue, which required phased construction to allow motor and pedestrian traffic on Elm Avenue to continue during construction. Elm Avenue is the main access point to downtown Roanoke from I-581 and Route 220 and the preferred access route to the hospital from the West side of the city. Jeff was responsible for construction quality management, contract administration, estimating, constructability review of plans, and the overall safety of the project. He was responsible for a strictly enforced MOT Plan because of the large amount of travel through the project zone. Throughout design and construction, he led the project partnering and public relations efforts to ensure that stakeholders were informed. Stakeholders included a local hospital, multiple businesses, and the Roanoke Park System. He also maintained close coordination with the City of Roanoke to keep them aware of traffic changes. During construction, Jeff worked closely with designers and field personal to ensure constructability and safe operations while widening and reconstructing the two bridges. He worked with the designer to build retaining walls that required minimal support of excavation and limited disruption to the traveling public. He also led the effort to reconfigure the two overhead sign structures into a single overhead sign structure built on the center pier of the I-581 bridge. This innovation improved the sight distance of signalized intersections at the on- and off-ramps to I-581. **Client:** VDOT **Similarities to the I-81 Project:** VDOT D-B project in the Salem District; roadway; bridge construction; survey; environmental; geotechnical; hydraulics; traffic control devices; MOT/TMP; ROW; SWM; utilities; public involvement/relations; third-party/stakeholder coordination; QA/QC; ITS; construction engineering and inspection; and project management.

MIDDLE GROUND BOULEVARD EXTENSION D-B | NEWPORT NEWS, VA

Project Role: Assistant Design-Build Project Manager | **Dates:** 2011 –2014 | **With Current Firm:** No

Responsibility/Specific Job Duties: This VDOT D-B project consisted of construction of a 1.2-mile new location/connector road from Warwick Boulevard to Jefferson Avenue. This project intersected with two major highways and crossed over another, as well as a two-span concrete girder bridge over the CSX Railroad. ROW coordination and relocations played a large role in this project that involved a total of 172 ROW parcels and 140+ relocations. Jeff managed design and preconstruction activities and was heavily involved in developing the MOT plans, which led to minimizing traffic shifts and reduced the traffic control measures required to construct the project. He performed constructability reviews to prevent delays during design and construction. His involvement in the project startup phase expedited the start of construction to include operations on the critical path helping to reduce impacts to the project schedule. Worked with the environmental team to coordinate soil and water sampling to determine the potential for hazardous materials early in the design process to mitigate potential risk. Coordinated partnering relationships with USACE and VA DEQ to provide early stream and wetland delineation to support roadway design. Worked closely with the CSX Railroad during design to construct a structure that allowed for their future expansion needs and led the construction scheduling efforts to work around heavy train traffic at this location.

Client: VDOT **Similarities to the I-81 Project:** VDOT D-B project; roadway; bridge construction over a railroad; survey; environmental; geotechnical; hydraulics; traffic control devices; TMP; ROW; utilities; public involvement/relations; third-party/stakeholder coordination; QA/QC; project management.

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

h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment. **Not Applicable**

ATTACHMENT 3.3.1



KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.
a. Name & Title: MAGGIE COSSMAN, PE, DBIA Senior Project Manager
b. Project Assignment: ENTRUSTED ENGINEER IN CHARGE
c. Name of the Firm with which you are employed at the time of submitting SOQ.: Branch Civil, Inc.
d. Employment History: With this Firm <u>3</u> Years With Other Firms <u>20</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): Branch Civil, Inc. Senior Project Manager 2017 – Present: Responsible for oversight and direction of the company's project activities. Manage the construction process, contract administration, project management, implementing the quality control (QC) process to confirm that materials used, and work performed, meet contract requirements, conformance with plans and specifications. Also responsible for coordinating with owner's representatives, third-party stakeholders, subcontractors, and vendors to maintain clear lines of communication among project stakeholders. Currently assigned as the Design-Build (D-B) Coordinator for the Branch-Flatiron Joint Venture (JV) on the I-95 Express Lanes Fredericksburg Extension (FredEx) D-B Project. In this role, responsible for working as a direct liaison between the owner, 95 Express, and VDOT and the entire project team, including the public relations and safety teams to address owner and issues on behalf of the JV. City of Lynchburg, Transportation Engineer (2016 to 2017): Responsible for planning, designing, and maintenance of Lynchburg's transportation network. Supervised signal, sign, and pavement marking shops, and was responsible for maintaining signals, signage, and pavement marking within the 49 square miles of the City limits. Managed transportation related capital improvement projects from conception to construction. She prepared and presented transportation related issues to Lynchburg City Council, City Planning Commission, Region 2000 Local Government Council, VDOT, and the public. Additional responsibilities included administering the City's on-street parking system and developing and modifying traffic engineering policies to confirm that traffic control devices were compliant with FHWA/VDOT requirements. Worked with developers, contractors, and utility companies to review and approve all work within the City's ROW from permanent improvements to temporary work zones. Liberty University, Inc., Corporate Engineer (2009 to 2016): Responsible for campus master planning, managing consulting engineering firms, supervising construction document development, construction administration, and contract management, as well as the overall supervision of all site construction including roads, parking lots, sidewalks, utilities, landscaping, grading, drainage, and erosion and sediment control from preliminary conceptual plans through design, bidding, construction administration, and project closeout. Established project budgets, prepared invitations and solicited bids, selected bidders, prepared contracts, reviewed and approved change orders, approved pay applications, and maintained budgets and aggressive schedules. Responsible for on-site inspections, troubleshooting, value engineering, and compliance and reporting in accordance with local jurisdiction requirements. Maintained active VSMP permits to ensure stormwater grandfathering, served as responsible land disturber for projects performed in-house, and acted as a liaison between Liberty University and the City of Lynchburg, Campbell County, Bedford County, VDOT, DEQ, DCR, and USACE for planning, zoning, stormwater, and erosion and sediment control issues. Perkins & Orrison, Inc., Project Manager (2003 to 2009): Responsible for all aspects of projects including proposal, fee negotiations, preliminary engineering reports, construction estimating, design, contract documents, technical specifications, project bidding, contract and construction administration, and project closeout. Responsible for civil engineering services for building projects and was an integral part of coordination between disciplines for final design and while making sure that all projects were completed on schedule and within budget.
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: University of Dayton Dayton, OH 1997 Bachelor of Science, Civil Engineering
f. Active Registration: Year First Registered/ Discipline/VA Registration #: 2002 Professional Engineer #0402-036400 2020 Designated Design-Build Professional (National Designation)

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

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

I-95 EXPRESS LANES FREDERICKSBURG EXTENSION D-B | STAFFORD COUNTY, VA

Project Role: D-B Coordinator | **Dates:** 2018 – Current | **With Current Firm:** Yes

Responsibility/Specific Job Duties: This project will extend I-95 Express Lanes approximately 10 miles south of Route 610 (Garrisonville Road) in Stafford County to the vicinity of Route 17 (I-95 Exit 133). Two reversible high-occupancy toll lanes will be built in the existing median of I-95. The lanes will connect to the I-95 Southbound Rappahannock River Crossing project and the I-95 Northbound Rappahannock River Crossing project. Additional access to the I-95 Express Lanes will be added near the Route 17 and Route 630 (Courthouse Road) I-95 interchanges in Stafford, and near the Russell Road interchange at Quantico Marine Corps Base in Prince William County. Working as a direct report to the DBPM, with direct lines of communication to the Design Manager, Design Integration Manager, Construction Manager, Quality Assurance Manager, Safety Manager and Public Relations Manager. Responsible for constant coordination with the design team to confirm that all engineering work is fully integrated into a single effective working design. Closely monitor and manage design progress, maintaining action log of critical items and ensuring team focus to address critical issues. Ensure design compliance with D-B Contract, which includes non-standard VDOT contract provisions. When necessary, responsible for making field adjustments and confirming that changes are incorporated into the design. Facilitate weekly management team meetings with 95 Express, LLC (the Concessionaire), VDOT, and Branch-Flatiron JV leadership to discuss, track, and resolve issues, including contract compliance, coordination with VDOT on adjacent projects, potential change orders, safety issues, and the progress of project milestones. Following meetings, responsible for following-up on action items, maintaining project insurance and bonds, and producing change orders, developing and maintaining project correspondence with the owner and designer. Also responsible for subcontractor compliance, including DBE/SWaM contract projections and compliance. **Client:** Transurban
Similarities to the I-81 Project: VDOT D-B project; roadway widening; survey; hydraulics; ROW acquisitions; signing and pavement markings; SWM and erosion and sediment control; retaining walls; environmental; structure construction; utility relocations; geotechnical; traffic control devices; TMP; public involvement/relations; third-party/stakeholder coordination; QA/QC; CEI; and project management.

LIBERTY UNIVERSITY CAMPUS CORE REBUILD | LYNCHBURG, VA

Project Role: Project Manager | **Dates:** 2011 –2015 | **With Current Firm:** No

Responsibility/Specific Job Duties: Managed the design and construction of all site work associated with Liberty University's Campus Core Rebuild Construction Management At-Risk Project. Solicited proposals and managed the site design and construction, coordinated with the University stake holders, City of Lynchburg, and other regulatory agencies. Responsible for value engineering and managed aggressive schedules and frequent changes in design direction and budgets. The buildings were constructed within a 38-acre area requiring over 400,000 CY of material to be moved. **Client:** Liberty University **Similarities to the I-81 Project:** Roadway design, design coordination, survey, utility coordination hydraulics, public involvement/relations, third-party/ stakeholder coordination, project management, and QA/QC.

LIBERTY UNIVERSITY COLLEGE OF OSTEOPATHIC MEDICINE | LYNCHBURG, VA

Project Role: Project Manager | **Dates:** 2012 –2014 | **With Current Firm:** No

Responsibility/Specific Job Duties: Led the road and site design and construction for the 14-acre Liberty University College of Osteopathic Medicine Campus, which includes a 140,000 SF facility served by a 500-car parking lot and over a mile of new access roads. Worked with the construction management team to optimize the design, which included a re-design to avoid streams and wetlands to reduce permitting requirements and construction duration. Confirmed that design and construction met VDOT standards so the University could solicit VDOT to accept the road network into the state system in the future.

Client: Liberty University **Similarities to the I-81 Project:** Roadway design, design coordination, survey, utility coordination hydraulics, public involvement/relations, third-party/stakeholder coordination, project management, and QA/QC

* 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. Maggie is working as the D-B Coordinator on the FedEx Project. Her duties on this project will be complete before commencement of construction of this Project. As the Entrusted Engineer-in-Charge, Maggie will be assigned full-time to the project from design through completion of construction.



ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.
a. Name & Title: CHAD MCMURRAY, PE, PMP, CCM, DBIA Associate
b. Project Assignment: Quality Assurance Manager (QAM)
c. Name of the Firm with which you are employed at the time of submitting SOQ.: Whitman, Requardt & Associates, LLP (Full Time)
d. Employment History: With this Firm <u><1</u> Years With Other Firms <u>25</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): Whitman, Requardt & Associates, LLP Associate 2019 – Present: Chad is responsible for construction management and inspection (CMI) for the Southwest Virginia territory of WRA's southern CMI operations with direct control and supervision of all CMI services provided out of the area with 20 employees. General duties include management of contracts, supervision of project staff, performance of contract duties including acting as the owner's representative on projects, providing quality assurance/quality control (QA/QC) services on design-build (D-B) and design-bid-build (D-B-B) projects, development of project reports, and meeting client and company performance requirements. A. Morton Thomas and Associates, Inc Associate 2011 – 2019: Responsible Charge Engineer for Abingdon Office with direct control and supervision of all engineering services provided out of this office of 40 employees. General duties include management of contracts, supervision of project staff, performance of contract duties including acting as the owner's representative on projects, providing QA/QC services on D-B and D-B-B projects, development of project reports, and meeting client and company performance requirements. Wood, P.C. (formerly AMEC E&I, Inc) Senior Principal Engineer 2008 – 2011: QA/QC duties included documentation including RFI's, NCR's, DWR's, schedule review and monitoring, providing/overseeing QA/QC testing and inspecting, oversight of QA/QC inspection/testing staff. Duties included management of contracts, supervision of project staff, performance of contract duties including acting as the owner's representative on projects, providing QA/QC services on D-B and D-B-B projects development of project reports, and meeting client and company performance requirements. Virginia Department of Transportation (VDOT) Area Construction Engineer 2004 – 2008: Coordinated and supervised field inspection staff responsible for construction oversight and QA/QC on VDOT projects in the Bristol District. Ensured the Department met on-time, on-budget, quality, and environmental compliance goals for assigned geographic area. Assigned QA inspection staff and oversaw inspection and testing program in area. Avisco, Inc. Project Manager 2000 – 2004: Supervised and coordinated all field activities from start to completion of complex civil construction projects and assistance with managing overall Oak Ridge Operations. Responsible for project QC testing and inspection.
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: University of Tennessee, Knoxville / BS / 1993 / Civil Engineering
f. Active Registration: Year First Registered/ Discipline/VA Registration #: 2004 / Professional Engineer / #39985, Certified Construction Manager (CCM) # A2397 Project Management Professional (PMP) # 1405995, Design-Build Professional (DBIA), SMW and ESC Certification, Intermediate Work Zone Traffic Control Certification, Workzone Training for Law Enforcement Officers (LEO)
g. Document the extent and depth of your experience and qualifications relevant to the Project. <ol style="list-style-type: none">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> (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.)

I-81 OVER ROUTE 11, NSRR, AND HOLSTON RIVER D-B | SMYTH COUNTY, VA**Project Role:** QAM | **Dates:** 2019 –2023 | **With Current Firm:** No

Responsibility/Specific Job Duties: Chad is currently overseeing this VDOT D-B project that includes I-81 interchange improvements in Smyth County designed by WRA and constructed by Orders Construction. This project replacement of two bridges on Interstate 81 including the safety improvements of enhanced clear zones on Route 11 and NSRR. Chad's responsibilities include the development, updating, and implementing of a QA Plan. Responsibilities also include coordination of QA/QC testing. As the QAM, he is responsible for the acceptance testing and documentation of all materials used on the generation of the VDOT Materials Book. He verifies that the QC staff is following the QC Inspection and Testing Plans in the approved QA/QC Manual for this Contract. He also ensures environmental compliance is met and performing environmental reviews on the project. Additional duties include the oversight of construction activities to ensure conformance and providing oversight and management of inspection and testing staff. **Client:** ORDERS Construction Company, Inc. **Similarities to the I-81 Project:** VDOT D-B with roadway; survey; structures and bridges; environmental; geotechnical; hydraulics; traffic control devices; Multiple Phases; TMP; public involvement/relations; QA/QC; construction engineering and inspection (CEI); and project management.

I-81 HALLS BOTTOM ROAD BRIDGE REPLACEMENT D-B | WASHINGTON COUNTY, VA**Project Role:** QAM | **Dates:** 2016 –2018 | **With Current Firm:** No

Responsibility/Specific Job Duties: QAM for this VDOT D-B highway/bridge project in Washington County designed by WRA and constructed by Orders Construction. Responsibilities include the development, updating, and implementing of a project specific QA/QC plan. This D-B project included the replacement of two bridges on I-81. Chad's responsibilities also included coordination of QA/QC testing of embankment, drainage structures, subgrade, asphalt and incidental items. As the QAM, he was responsible for the acceptance testing and documentation of all materials used on the Contract, as well as the generation of the VDOT Materials Book and constructability reviews. He verified that the QC staff followed the QC Materials Testing Requirements in the approved QA/QC Plan for this Contract. He also ensured environmental compliance and performed environmental reviews on the project. Duties included oversight of all construction activities ensure conformance as well as providing oversight and management of inspection and testing staff. **Client:** ORDERS Construction Company, Inc. **Similarities to the I-81 Project:** VDOT D-B with: roadway; survey; structures and bridges; environmental; geotechnical; hydraulics; traffic control devices; multiple phases; TMP; public involvement/relations; QA/QC; CEI; and project management.

MILITARY HIGHWAY D-B | NORFOLK, VA**Project Role:** Responsible Charge Engineer | **Dates:** 2016 –2018 | **With Current Firm:** No

Responsibility/Specific Job Duties: As Responsible Charge Engineer, performed document management services for this intersection and capacity improvement on this VDOT D-B project on US 13 in Norfolk Virginia. Reviewed changes and coordinated with FHWA for concurrence and participation in changes. Also reviewed project correspondence, design submittals, RFI's, schedule submittals, and VDOT reviews and comments, coordinated reviews and comments of submittals, and communicated D-B through CADAC and guiding the Construction Manager, Inspection, and Engineering Support staff to effectively administer goals for safety, quality, schedule, and budget while overseeing construction activities. Attended regular project meetings and held weekly teleconferences to review the status of outstanding submittals, RFI's, and deadlines for comments/responses. **Client:** VDOT **Similarities to the I-81 Project:** VDOT D-B project; roadway; survey; environmental; geotechnical; hydraulics; traffic control devices; Multiple Phases; TMP; public involvement/relations; QA/QC; CEI project management; TMP; ROW; utilities; public involvement/relations; QA/QC; and project management.

* 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. **No Current QAM Assignments**



ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.
a. Name & Title: MIKE RUSSELL, PE, DBIA Vice President
b. Project Assignment: Design Manager
c. Name of the Firm with which you are employed at the time of submitting SOQ.: Whitman, Requardt & Associates, LLP (Full Time)
d. Employment History: With this Firm <u>5</u> Years With Other Firms <u>26</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): Whitman, Requardt & Associates, LLP Vice President 2014 – Present: Mike is currently a Vice-President with Whitman, Requardt & Associates, LLP where he is primarily responsible for managing transportation projects in Central and Western Virginia. He serves as a design manager on design-build projects (D-B) and project manager on interstate and other transportation projects in the region. Virginia Department of Transportation (VDOT) District Administrator 2011 – 2014: Mike became the Bristol District Administrator in 2011 and provided executive leadership and direction to the Department's 623 employees in the 12 county Bristol District including 87 miles of I-81. He served as an extension of the Commissioner's Office with direct oversight of a six-year construction program valued at over \$500M and an annual maintenance and operation budget averaging \$170M per year. He maintained a high level of involvement in the oversight and design of key projects in the District providing design guidance and construction claim resolution. He worked proactively with staff to resolve design and construction issues to ensure the advancement of the District's program. The major highlights of the construction program were the \$2.8B Coalfields Expressway and Corridor Q programs. VDOT PE Manager/PIM 2007 – 2011: Mike became the Salem District Assistant District Administrator for Preliminary Engineering, Planning, and Investment Management in 2008 and led the District's Preliminary Engineering staff including Location & Design, Environmental, and Right-of-Way Sections. He was responsible for engineering functions to ensure compliance with all state and federal transportation and environmental standards and policies and led several projects on I-81 during this timeframe. In addition to the P.E. Manager role, Mike led the District's Planning & Investment Management staff including Land Use, Land Development, Planning, and Programming. VDOT Location & Design Engineer 2004 – 2007: Mike became the Salem District Location & Design Engineer in 2005 and subsequently led and managed design staff responsible for the preparation of highway, right-of-way (ROW) and construction plans, including survey, roadway and hydraulic design. He coordinated with ROW, Environmental, Bridge, Traffic, and Materials Sections to ensure a cohesive and collaborative design for all projects. He provided engineering oversight to ensure projects were developed in accordance with applicable state and federal standards. As District L&D Engineer he was responsible for the design of multiple projects, from small projects costing less than \$1M to very complex projects costing \$100M, including multiple projects on the I-81 corridor. His collaborative and hands-on approach to project management and design guided the design teams to significantly improve the on-time and on-budget performance of the District's projects performance measures while maintaining a problem-solving mindset of the team. VDOT Resident Engineer 2003 – 2004: Mike became the Wytheville Resident Engineer in 2003. He was responsible for all construction and maintenance activities in Wythe and Grayson Counties. In addition to having geographic responsibility for all VDOT activities in Wythe and Grayson counties, he served as the Department's Responsible Charge Engineer for construction activities and ensured compliance with plans, specifications, environmental requirements and contract documents. He reviewed and accepted independent work order estimates and analysis while focusing on successful field resolution of disputes by providing technical analyses of issues and negotiating and implementing partnering with contractors to settle conflicts. VDOT Transportation Engineer, SR 2000 – 2003: Mike joined VDOT in 2000 as a Transportation Engineer, SR where he served as project manager for a number of major projects in the Salem District.
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: Virginia Polytechnic Institute and State University, Virginia/BS/1989/Civil Engineering

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

1994 / Professional Engineer / #0402024814

2016 / Design-Build Professional (DBIA) / 175396

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

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

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

I-81 HALLS BOTTOM ROAD BRIDGE REPLACEMENT D-B | WASHINGTON COUNTY, VA

Project Role: Design Manager | **Dates:** 2016 –2018 | **With Current Firm:** Yes

Responsibility/Specific Job Duties: Mike was responsible for all design elements of this VDOT D-B project that replaced two bridges on I-81 over Halls Bottom Road in Washington County, Virginia. He was responsible for roadway design, coordination of all individual design elements. He ensured that the design conformed with contract requirements and delivered the project in accordance with the project's QA/QC plan. This project was constructed within an existing ROW, which required a complex MOT plan utilizing the existing median to temporarily carry north and southbound traffic while the existing bridges were replaced. The efficient design replaced twin four-span, 220' long bridges with 140' single span structures utilizing a "true MSE" abutment design. Mike managed an aggressive design schedule that allowed construction to begin only 3.5 months after NTP. **Client:** ORDERS Construction Company, Inc. **Similarities to the I-81 Project:** VDOT D-B project; roadway; survey; structures and bridges; environmental; geotechnical; hydraulics; traffic control devices; TMP; public involvement/relations; QA/QC; construction engineering and inspection; and project management.

ROUTE 29 SOLUTIONS D-B – BERKMAR AVENUE EXTENSION | ALBEMARLE COUNTY, VA

Project Role: Project Manager, Element Design Lead | **Dates:** 2014 –2017 | **With Current Firm:** Yes

Responsibility/Specific Job Duties: Mike was responsible for coordinating all design elements of this VDOT D-B Project. He was responsible for the design of the 2.5-mile Urban Connector roadway including a 716' long bridge over the South Fork of the Rivanna River. The D-B project was delivered on an accelerated schedule with ROW plans completed in just six months. Mike accelerated design efforts needed to advanced ROW approvals and VSMP permits to allow clearing activities to occur before the time of year restrictions of the Northern Long-Eared Bat, which was listed as endangered after the award of the contract. All design activities were delivered in accordance with the project's QA/QC plan and Construction Engineering support included review of all shop drawings. The Route 29 Solutions project was the 2017 Overall Winner of the VTCA *Transportation Engineering Award*. **Client:** Rummel, Klepper & Kahl, LLP **Similarities to the I-81 Project:** VDOT D-B project; roadway on new alignment; survey; structures and bridge over waterway; environmental; geotechnical; hydraulics; traffic control devices; TMP; public involvement/relations; QA/QC; and project management.

I-64 WIDENING – MP 200 TO 205 HENRICO AND NEW KENT COUNTIES, VA

Project Role: Design Manager | **Dates:** 2017 –2019 | **With Current Firm:** Yes

Responsibility/Specific Job Duties: Mike was responsible for the roadway design and coordination of all design disciplines for this VDOT D-B project, which included 4.5 miles of improvements to the existing I-64, Widening and rehabilitation of the existing two-lane bridges over the Chickahominy River with three-lane bridges in each direction. The I-64 bridges are approximately 263' long, utilized concrete beams, and were supported by concrete piles. I-64 was widened to provide additional capacity from I-295 to the Bottoms Bridge exit. A very detailed MOT plan and TMP were required as part of the project and were delivered as an advanced work package to facilitate the initial construction operations and advance the schedule for the project. Mike continued providing oversight and coordination for all design elements and management of subconsultants while the project was under construction.

Client: Corman/Branch Joint Venture **Similarities to the I-81 Project:** VDOT D-B project, roadway; survey; structures and bridges; environmental; geotechnical; hydraulics; traffic control devices; TMP; ROW; utilities; public involvement/relations; QA/QC; and project management.

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

h. For Key Personnel required to be on-site full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment. **Not Applicable**

ATTACHMENT 3.3.1



KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.
a. Name & Title: ROBERT (BOB) CROSS Construction Manager
b. Project Assignment: Construction Manager
c. Name of the Firm with which you are employed at the time of submitting SOQ.: Branch Civil, Inc.
d. Employment History: With this Firm <u>1</u> Years With Other Firms <u>39</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): Branch Civil, Inc. Construction Manager 2019 to Present: Bob is responsible for all phases of project management, including planning, organizing, staffing, directing, controlling, and executing work. Projects include design-builds (D-Bs), construction of highways, bridges, and heavy civil work for state departments of transportation, federal government agencies, and private corporations. His responsibilities include scheduling and supervising manpower and equipment, owner/subcontractor/supplier contact and coordination, modification/extra work estimating, pricing and negotiation, claims management, EEO compliance and enforcement, and compliance with corporate safety regulations, including training. Lane Construction Corporation Construction Manager 2006 to 2019: Bob performed constructability reviews of design drawings; developed and maintained the project schedule; and coordinated contractor/subcontractor activities. He was responsible for overseeing all quality control (QC) activities on the project site to and ensured that materials used, and work performed complied with contract requirements and "approved for construction" plans and specifications. Moore Brothers Construction Manager 2005 to 2006: Bob supervised all aspects of construction, including highway widening, geotechnical work, hydraulics, hydrology and erosion control, permitting, and utility coordination. Additionally, he performed QC activities to ensure contract requirements were met and that approved for construction plans and specifications were met. Archer Western Contractors Construction Manager 2003 to 2005: Bob performed constructability reviews of design drawings; developed and maintained project schedule; coordinated contractor and subcontractors' activities. He supervised all aspects of construction including QC assessments and measures. standards.
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: Northern Virginia Community College, Annandale, VA Coursework Langley High School McLean, VA High School Diploma 1972
f. Active Registration: Year First Registered/ Discipline/VA Registration #: DEQ RLD Certification VA Registration #11339 Expiration 01/19/2022 ESCC Certification VA Registration #3-00641 Expiration 03/22/2022 OSHA 10-Hour National Designation Registration #001355323 No Expiration
g. Document the extent and depth of your experience and qualifications relevant to the Project. <ol style="list-style-type: none">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> <p>(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.)</p> <p>I-64 WIDENING, EXIT 200 TO 205 D-B HENRICO AND NEW KENT COUNTIES, VA Project Role: General Superintendent Dates: August 2017 – August 2019 With Current Firm: Yes Responsibility/Specific Job Duties: Bob oversaw all phases of construction from initial planning to completion. His daily responsibilities included general human resource functions, supervision of construction activities, handling cost accounting functions, coordination of daily work activities, and ensuring that project staff have the proper training. This project improved the serviceability and safety of the I-64 corridor for the traveling public by widening the existing roadway while maintaining the existing travel lanes. The scope included widening/adding a new inside lane of traffic and shoulder of both EB and WB I-64 for</p>

approximately 3.5 miles as well as two existing bridges over the Chickahominy River, and included: new asphalt pavement, grading, new drainage, new roadway lighting at EB and WB weigh stations, ITS system updates and re-routing, new roadway signing (overhead and post-based), box culvert extensions, rehabilitation to the two existing bridges as well as repairs to existing substructure/superstructure/ replacement of existing decks, and construction of a new 1.25 miles of noise barrier walls on I-64 WB. **Bob worked with DBPM Jeff Humphreys, DBIA on this project. Client:** VDOT **Similarities to the I-81 Project:** VDOT D-B project; interstate widening and improvement; roadway; survey; hydraulics; ROW acquisitions; signing and pavement markings; stormwater management; erosion and sediment control; retaining walls; environmental; bridge construction and pier protection; utility coordination/ relocations; geotechnical; traffic control devices; TMP; public relations; stakeholder coordination; QA/QC; construction engineering and inspection (CEI); and project management.

I-66/ROUTE 15 INTERCHANGE D-B | HAYMARKET, VA

Project Role: Construction Manager | **Dates:** 2014 –2017 | **With Current Firm:** No

Responsibility/Specific Job Duties: Bob managed the entire construction process on this \$40M VDOT D-B project to reconstruct the I-66/Route 15 interchange from a standard diamond to a diverging diamond interchange (DDI). The scope of work included demolition and reconstruction of two bridges over I-66 and widening of approximately 0.75 miles of Route 15. Extensive MOT was required, with an emphasis on the switch of traffic into the new DDI traffic configuration. Other scope items included utility coordination/relocation; stormwater management facility construction; retaining walls; sound walls; and lighting. Bob coordinated subcontractors' schedules, created progress schedules to maintain cost-effectiveness, and communicated effectively with quality control (QC) for inspections and daily routines. He was responsible and accountable for planning, scheduling, cost, D-8 conformance and QC. He also maintained close coordination with utility companies during the relocation of utilities, and managed communication with multiple stakeholders. He coordinated with and monitored contract progress with VDOT and subcontractors (including adherence to contractual requirements and specifications) and oversaw the overall safety and quality control programs. This project received three DBIA honors in 2018, including the prestigious *Project of the Year Award*. **Client:** VDOT **Similarities to the I-81 Project:** VDOT D-B project; interstate widening and improvement; bridge and structure construction; utility coordination and relocation; ROW acquisition; sign structures; public relations; stakeholder coordination; QA/QC; CEI; and overall project management.

I-95 EXPRESS LANES P3| PRINCE WILLIAM & STAFFORD COUNTIES, VA

Project Role: Project Manager | **Dates:** 2012 – 2017 | **With Current Firm:** No

Responsibility/Specific Job Duties: Bob was responsible for the management of the construction process on this challenging P3 project that included the construction of approximately 29 miles of Express Lanes on I-95. The project added capacity to existing HOV lanes from the Prince William Parkway to the vicinity of Edsall Road. It also improved existing HOV lanes for six miles from Route 234 to the Prince William Parkway. A nine-mile reversible two-lane extension of the existing HOV lanes from Dumfries to Garrisonville Road in Stafford County helped alleviate one of the worst bottlenecks traffic conditions in the region. The project consisted of extensive ITS and signing, sound walls, asphalt mill and overlay, structural bridge work, and an 8.3-mile roadway extension that consisted of major clearing, earthwork, and bridge flyovers. Bob was responsible for oversight of the QC program, project schedules, cost control, subcontractor coordination, work plans, and specific means/methods for carrying out the work. He ensured the materials used and work performed met contract requirements and the "approved for construction" plans and specifications. Bob had extensive involvement with the complex MOT plans and implementation, relocation, adjustments, and coordination of utilities, and helped address environmental concerns. **Client:** VDOT **Similarities to the I-81 Project:** VDOT alternative delivery project; structures and bridge construction; roadway; utility relocation/coordination; MOT; hydraulics; environmental; geotechnical; traffic control devices; TMP; public relations; stakeholder coordination; QA/QC; CEI; and project management.

* 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. **No Applicable Workload**

ATTACHMENT 3.3.1



KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.
a. Name & Title: DAVID C. SCOTT Corporate Safety Representative II
b. Project Assignment: Incident Management Coordinator (IMC)
c. Name of the Firm with which you are employed at the time of submitting SOQ.: Branch Civil, Inc.
d. Employment History: With this Firm <u>5</u> Years With Other Firms <u>15</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): Branch Civil, Inc. Corporate Safety Representative 2015 – Present: In his role, David oversees a variety of large-scale construction projects in Virginia, West Virginia, and North Carolina. He is responsible for conducting safety inspections and audits to ensure compliance with all safety regulations. David has demonstrated experience in traffic management and is responsible for supervising and assisting with traffic incident investigations, injuries, and worker's compensation claims within the company. He is experienced with roadway widening projects, including those on busy interstate roadways that involve a high level of traffic. He quickly and calmly responds to rapidly changing project needs to deliver practical, time-sensitive solutions to challenging roadway and project conditions. He establishes and maintains productive working relationships with the entire construction team, including all subcontractors and work crews. David also manages the first aid/CPR program for Branch, in which he coordinates with regional instructors for the company's training and logistical needs. He also ensures that all Branch employees are provided the appropriate level of training for their position(s) and assists with safety equipment needs, including personal protective equipment (PPE), automated external defibrillator (AED) machines, and confined space air monitoring control systems. Virginia ABC, Bureau of Law Enforcement Special Agent – LEO III 2007 - 2015: Responsible for maintaining and coordinating logistics, which included the upkeep and safe maintenance of vehicles assigned to the Region. Conducted complex criminal and financial investigations using appropriate investigative techniques and procedures while following laws and procedures. Prepared and presented cases before criminal and administrative federal and state courts, as well as the ABC Hearing and Appeals Division. Completed required training to maintain certification for firearms, defensive tactics, motor vehicle operations, electronic equipment, and legal updates. City of Roanoke Police Department Law Enforcement Officer II 2000 - 2007: As a Warrant Service Officer worked as a Special Deputy with the US Marshall Fugitive Task Force. Responsible for high-risk warrant service and tactical entry. Investigated and located fugitives on local and multijurisdictional warrants and assisted other localities in apprehensions. As a Community Resource Officer, he created and maintained relations with community and neighborhood groups. Conducted training and public speaking on crime prevention and awareness. Also, as a Patrolman and Field Training Officer, he was responsible for the investigation of criminal activity through neighborhood patrol and traffic enforcement. He investigated vehicular accidents on Virginia's roadways, including interstates, rural and local roadways. These incidents involved fatality investigations and interagency interaction with multiple jurisdictions. In all of his roles with the City, he was responsible for traffic control during major traffic incidents, crowd control, significant weather events (e.g., floods, forest fires), crime scenes, and special events.
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: Department of Criminal Justice, Police Academy VA 2000 Law Enforcement Officer Radford University Radford, VA 1999 Bachelor of Science Criminal Justice
f. Active Registration: Year First Registered/ Discipline/VA Registration #: 2016 OSHA 30- and 10-Hour Certification National Designation; 2018 Department of Mineral Mining National Designation; 2016 American Red Cross First Aid/CPR/AED Instructor National Designation; 2018 EPRO Aerial Life, Scissor Lift Instructor National Designation; 2012 DCJS Defensive Driving Instructor VA; 2011 DCJS Academic Instructor VA ; 2005 Mounted Patrol Certification VA; 2004 US Marshall Special Deputy VA
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. Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.

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

I-81 EXIT 150 | BOTETOURT COUNTY, VIRGINIA

Project Role: Corporate Safety Representative | **Dates:** 2015 - 2019 | **With Current Firm:** Yes

Responsibility/Specific Job Duties: Branch was the General Contractor for this three-phase project in Botetourt County, VA, to significantly reduce vehicle crash and injury rates on the heavily traveled corridor. In this role, David made frequent visits to the project site to ensure that all workers were working safely and following correct safety procedures. During these visits, he carried out onsite inspections to determine hazardous conditions and determine solutions to mitigate issues. Maintained constant communication with all team members as well as upper management to express project needs. He worked directly with the team's traffic coordinator to ensure that safe work zones were provided for the traveling public and onsite workers. He was also responsible for ensuring that all workers were using adequate PPE, made certain workers knew how to handle tools and equipment safely, and provided onsite safety training to all team members, including subcontractors. **Client:** VDOT **Similarities to the I-81 Project:** VDOT project; roadway widening; complex MOT and TMP; structure demolition; safety and congestion concerns; survey; and traffic control.

SOUTHGATE DRIVE INTERCHANGE | BLACKSBURG, VIRGINIA

Project Role: Corporate Safety Representative | **Dates:** 2015 - 2019 | **With Current Firm:** Yes

Responsibility/Specific Job Duties: The existing at-grade intersection of US 460 and Southgate Drive functions as the gateway Virginia Tech. This intersection experienced significant queues during the AM and PM peak hours, as well as during major events on campus, thus hampering through movements along US 460 and creating safety concerns with rear-end collisions. David's role required constant communication with all team members as well as upper management to express project needs. He worked directly with the team's traffic coordinator, VDOT, and Virginia Tech, to ensure that safe work zones were provided for the traveling public and onsite workers. His position required intimate knowledge of the project, which he gained by weekly site visits to perform safety and compliance audits to confirm compliance with safety regulations and procedures. He was also responsible for providing onsite safety training to all team members, including subcontractors. **Client:** VDOT **Similarities to the I-81 Project:** VDOT project; roadway widening; complex MOT and TMP; structure construction; safety and congestion concerns; survey; and traffic control.

I-74/US 311 & NC 68 INTERCHANGE IMPROVEMENTS | GUILFORD COUNTY, NC

Project Role: Corporate Safety Representative | **Dates:** 2018 - Present | **With Current Firm:** Yes

Responsibility/Specific Job Duties: As part of the Greensboro Urban Loop, the I-74/US 311 & NC 68 Interchange is being constructed to improve safety and support a daily traffic flow of 8,000+ vehicles per day. David's role requires constant communication with all team members as well as upper management to express project needs. He works directly with the team's traffic coordinator to ensure that safe work zones were provided for the traveling public and onsite workers. This is especially important with onsite workers who are responsible for maintaining traffic in a busy and congested interchange. His position requires intimate knowledge of the project, which he gains by frequent site visits to perform safety and compliance audits to confirm compliance with safety regulations and procedures to ensure a hazard-free work environment. Other duties include assessment and approval of subcontractor safety plans, promoting safe practices on the project site, creating and enforcing safety guidelines and programs, providing onsite safety training to all team members, and attending project planning meetings and collaboration with construction managers. **Client:** NCDOT **Similarities to the I-81 Project:** Roadway widening; complex MOT and TMP; structure demolition and construction; safety and congestion concerns; and traffic control.

* 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 onsite full-time for the duration of construction, provide a current list of assignments, role, and the anticipated duration of each assignment. Although David is currently working on the I-74/US 311 & NC 68 Interchange Improvements Project, his work assignment will be delegated to another safety representative within Branch upon receipt of a Notice of Award for this Project. He will be dedicated to this Project and will be onsite for the duration of construction operations.



APPENDIX 3.4.1

Work History Forms

ATTACHMENT 3.4.1(a)
LEAD CONTRACTOR - WORK HISTORY FORM
(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime design consulting firm responsible for the overall project design.	c. Contact information of the Client and their Project Manager who can verify Firm's responsibilities.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement (in thousands)
					Original Contract Value	Final or Estimated Contract Value	
Name: I-64 Widening Exit 200 to 205 Design-Build Location: Henrico and New Kent Counties, Virginia	Name: Whitman, Requardt & Associates, LLP	Name of Client/Owner: VDOT Phone: 804.212.8294 Project Manager: Scott Fisher, PE Phone: 804.212.8294 Email: scott.fisher@vdot.virginia.gov	08/2019	10/2019	\$43,385	\$47,917 <i>(Increased due to Owner-directed scope changes and early completion incentive.)</i>	\$26,354 <i>(Branch was the majority Joint Venture partner with a percentage equal to 55%)</i>

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

- SIMILARITIES TO THE I-81 PROJECT:**
- VDOT D-B Project
 - Interstate Roadway
 - Roadway Widening
 - Bridge and Structure Construction
 - Minimizing Congestion During Construction
 - Transportation Management Plan
 - Environmental Permitting
 - Third Party Stakeholder Communication & Coordination
 - Public Involvement & Outreach
 - Geotechnical Challenges
 - Erosion and Sediment Control & Stormwater Management
 - Utility relocation
 - Earthwork, grading, and drainage
 - QA/QC
 - Teamed with Lead Designer WRA

As the Design-Builder, managing partner in a Joint Venture, and Lead Contractor, Branch Civil was responsible for management and oversight of construction of this challenging D-B project that included the widening of five miles along I-64 from four lanes to six lanes, widening two existing structures over the Chickahominy River, and rehabilitating the existing structures to accommodate the additional lanes. The scope of services included design and engineering, management and oversight and construction, right-of-way (ROW) acquisition, permitting, utility relocations, public outreach, overall Project administration, and QA/QC. All construction work was performed on a heavily traveled roadway and all lane restrictions were coordinated with VDOT to allow for public notifications of impacts to traffic. Branch was the primary point of contact with the Owner in public relations and getting notices out to traveling motorists, businesses, and residents. Branch was also responsible for creating and monitoring the schedule throughout design and construction. Branch provided the DBPM (Jeff Humphreys, DBIA), Construction Manager, General Superintendent (Bob Cross), and a staff of engineers to help manage the project. Branch self-performed all erosion control, grading, drainage, MOT, and stone base construction.

PROJECT CHALLENGES: Access into and out of the project proposed challenges for material delivery, worker safety and impacting the traveling public. Temporary acceleration and deceleration lanes were constructed at all the entry and exit points along the five mile work zone to provide safe access. Message boards and conventional signage were used to manage driver expectancy and helped reduce confusion in the work zone.

INNOVATION: Environmental compliance was crucial to the success of the project. With record breaking rainfall and rising river levels, the focus on environmental protection was not overlooked. Plans were developed in advance to prepare for storms, react during rain events, and prepare to respond after the storm has passed. Branch and WRA's environmental staff enacted mandatory environmental compliance training of all project office and field personnel.

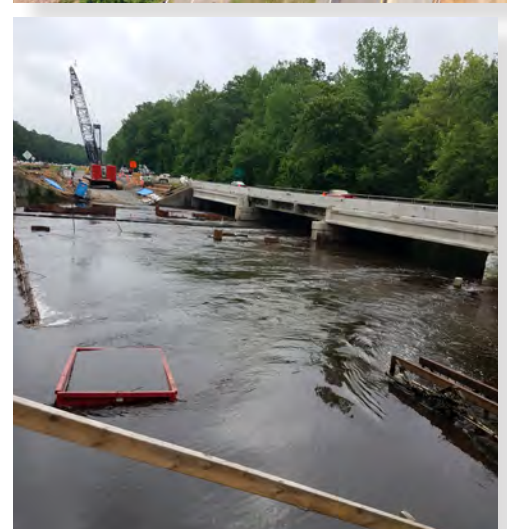
MAINTENANCE OF TRAFFIC AND TRANSPORTATION MANAGEMENT PLAN | Branch's team knew that special attention to MOT would be essential to not only ensure the safety of workers on-site, but to also provide safe, well-communicated TMP for the public that would have a minimal impact on this highly congested corridor. Signage, temporary pavement markings, and carefully planned ingress/egress locations were a few major elements of this plan. A similar analysis will be performed for the I-81 Project so that its specific needs can be addressed. The original sequence of construction involved multiple traffic shifts along I- 64. In accordance with the baseline schedule, the noise walls were to be installed near the end of the project timeline. The sequence of construction was revised to allow the noise wall construction to begin early therefore eliminating a temporary traffic shift.

PUBLIC OUTREACH: This project was highly politically visible for VDOT. Both the functionality of the final product and the time during which the public would be impacted by construction were extremely important. The team utilized VDOT's website, social media, multiple message boards, radio ads, mailers, and meetings with police and first responders to manage and respond to the public outreach concerns associated with this project.

ROW AND UTILITY STRATEGIES: The footprint of the construction of the project was contained within the current limits of VDOT's existing ROW. A potential delay to the schedule was discovered with a conflict between a Dominion Energy and the noise wall. The Dominion line could not be shut down due to the proximity of the noise wall to the zone of influence of the power line. To prevent the delay the noise wall posts were designed outside of the zone of influence and shorter panels were used that could be erected with forklifts.

PROJECT AWARDS: This project was presented with the 2020 *Infrastructure Award - \$15 Million and Above* by the Heavy Construction Contractors Association (HCCA).

EVIDENCE OF GOOD PERFORMANCE | Extreme weather that impacted bridge and roadway construction, as well as additional scope of work, pushed the project behind schedule during the early phases of construction. Additional crews and re-sequencing activities brought the project completion in ahead of the original completion date, earning the maximum early completion incentive from VDOT.



Despite higher than normal river levels, which affected your substructure work on the bridge, pushing the project weeks behind the baseline schedule and the addition of soundwall square footage, Branch kept focused on completing the project within the original schedule. You led the project toward safety and quality while actively partnering with the Department. I appreciate your commitment to the project and look forward to working with you on future projects.

SHANE MANN, PE
District Construction Engineer
VDOT Richmond District

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 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: US Route 58 Laurel Fork and Tri-County Connector PPTA Location: Carroll, Floyd, and Patrick Counties, Virginia	Name: HNTB Corporation	Name of Client/Owner: VDOT Phone: 540.387.5360 Project Manager: Robert Williams Phone: 540.387.5345 Email: robbie.williams@vdot.virginia.gov	11/2015	09/2016	\$119,750	\$118,450 <i>(Reduction due to cost savings because of mitigation site)</i>	\$118,450

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

- SIMILARITIES TO THE I-81 PROJECT:**
- D-B project
 - Roadway widening
 - Environmental permitting and wetlands mitigation
 - Stakeholder coordination and public involvement
 - Geotechnical challenges
 - Minimizing congestion during construction
 - Erosion and sediment control & stormwater management
 - Permitting
 - Utility relocation
 - ROW acquisitions and relocations
 - Earthwork, grading, and drainage
 - QA/QC

Branch served as the Lead Contractor for this project that involved widening an 8.2 mile section of Route 58 that passes through Carroll, Floyd, and Patrick Counties between Meadows of Dan and Laurel Fork. Route 58 was widened from two- to four-lanes with grassy medians in some areas. Branch completed this project under a public-private partnership agreement (PPTA) that VDOT entered into in December 2003. Under this agreement, Branch will design, build, and widen 36 miles of the Route 58 corridor between Hillsville and Stuart as funding is available. Widening this section of Route 58 required excavating approximately 1.7 million cubic meters of rock and dirt, laying 15,000 meters of drainage pipe, installing 10,000 meters of guardrail and placing 135,000 metric tons of asphalt.

PROJECT CHALLENGES | One of the largest challenges our team faced on this project was coordinating our work with the various utility companies to ensure that all parties could perform their work with minimal impacts. The environmental permitting process also presented several challenges. During the process of delineating impacted areas it was discovered that there were not enough wetland credits to purchase to compensate for the impacted areas. Because of this, Branch had to locate, design and construct a mitigation site to provide enough credits to cover the environmental impacts from the roadway improvements. In an effort to minimize the impact areas, the Team designed and constructed slopes at a 1.5:1 ratio versus the typical 2:1 ratio commonly seen in roadway design.

INNOVATION | To ensure the integrity of the roadway due to the soil types found in this region, the roadway prism was designed to use soil cement and cement treated aggregate to be placed 1' past the edge of the paved shoulder on both sides of the roadway. This provided a more rigid subsurface and will potentially last longer than only treating under the mainline roadway prism as was the case in previous sections of the Route 58 corridor. During the permitting process, our team met regularly to discuss progress of the delineation and verification by the US Army Corps of Engineers and Virginia Department of Environmental Quality. Branch proceeded to work in those areas as agency approvals were received. Considering the length of the project, and the amount of impacted areas, maintaining an open line of communication with the agencies was key to the successful completion of the project.

MAINTENANCE OF TRAFFIC AND TRANSPORTATION MANAGEMENT PLAN | The safety of the traveling public and construction workers was of the utmost importance on this heavily traveled corridor. To avoid numerous small traffic switches, Branch and Lead Designer (HNTB) phased MOT to minimize the amount of switches required to complete our work.

PUBLIC OUTREACH | Throughout design and construction, Branch held informational meetings that were available to the public to inform the locals of progress upcoming and traffic shifts. This ensured driver expectancy when traveling through the construction zone. Meetings occurred at the beginning of the project and the fall and spring of each year.

ROW AND UTILITY STRATEGIES | Branch held regularly scheduled meetings (weekly and biweekly) to discuss the ROW acquisition and utility relocation with VDOT and the ROW agents/utility owners. Branch was responsible for ROW coordination and VDOT responsible for ROW payments to property owners. Initially, an independent ROW agent handled all of the correspondence with the property owners, discussing the acquisition. Utility acquisitions were completed by VDOT, with assistance from Branch, on schedule.

EVIDENCE OF GOOD PERFORMANCE | During construction, VDOT issued a Work Order to extend the time due to impacts associated the utility relocations on the project. In spite of the scope changes, our team delivered a success project to VDOT on time and on budget.





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 and their Project Manager who can verify Firm's responsibilities.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement (in thousands)
					Original Contract Value	Final or Estimated Contract Value	
Name: I-81 Bridge Replacement over Maury River Location: Rockbridge County, Virginia	Name: Whitman, Requardt & Associates, LLP	Name of Client/Owner: VDOT Phone: 540.332.9075 Project Manager: Randy Kiser Phone: 540.332.9092 Email: randy.kiser@vdot.virginia.gov	12/2006	12/2006	\$17,736	\$18,991 <i>(Includes incentive payment)</i>	\$18,991

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

- SIMILARITIES TO THE I-81 PROJECT:**
- VDOT project
 - Interstate roadway
 - Replacement of bridge on I-81
 - Bridge construction
 - MOT to minimize congestion during construction
 - Geotechnical
 - Public outreach
 - Stakeholder coordination
 - Erosion and sediment control & stormwater management
 - Utility relocation
 - Teamed with Lead Designer WRA

ORDERS served as general contractor on this project for the replacement and widening of twin bridges over the Maury River on a heavily traveled section of I-81 in Rockbridge County, VA. This project scope of services included significant roadway work, including approach roadways being widened to accommodate maintenance of traffic (MOT) and future widening of I-81, and a truck climbing lane was added. The 800' long bridge structures, one four spans and one five, totaled over 100,000 square feet of deck area, and included complex expansion devices at each end. The project also required over 300,000 cubic yards of mostly rock excavation, with cuts between 80 and 120 feet in height immediately beside the highway. Other facets of the project included roadway drainage, asphalt paving, signing, guardrail, and installation of a new Traffic Management System.

PROJECT CHALLENGES | During construction, the Team was presented with high traffic volumes during lane closures required for beam construction and drilling and shooting to widen the roadway. In order to address this, the Team constantly monitored traffic to respond to changing conditions. Additionally, ORDERS responded to personnel need surges by hiring local employees for the Project. To attract the local workforce, the Team placed ads in local newspapers and worked with recruiting forces to hire numerous employees locally.

INNOVATION: Unique goals and priorities toward which VDOT strives on major bridge projects, and how to meet and exceed VDOT's standards. In addition, ORDERS gained valuable experience working in and adjacent to a heavily traveled road and development of TMP for the safety of their workers and the traveling public. This experience with traffic control and MOT will carry over to the I-81 Salem D-B Project. Partnering was significant to this project because everyone understood the value of finishing on time. ORDERS partnered with VDOT and WRA to compress the project schedule and to resolve design/construction issues quickly. This experience will apply as Orders keeps the project at hand on schedule. ORDERS was attentive to environmental concerns related to the installation of cofferdams for bridge piers. Regulators were pleased the river was spanned with a temporary bridge. ORDERS will continue this practice of partnering and being attentive to the risks at the I-81 Salem D-B project. Additionally, while working with WRA on the construction of piers and abutments foundations, ORDERS learned much about the karst substrata in the area and how to mitigate design and construction issues.

MAINTENANCE OF TRAFFIC AND TRANSPORTATION MANAGEMENT PLAN | Multiple traffic shifts were required to adjust the approach alignment to accommodate the wider bridges. The 800' long bridge structures totaled more than 100,000 SF of deck area and included innovative and complex expansion devices at each end known as the Virginia Abutment, designed by WRA. Other facets were significant rock excavation, roadway drainage, asphalt

paving, signing, guardrail, and a new traffic management system. Additionally, a full-time "Safety Service Patrol" was used due to the high traffic volumes. This relatively simple accommodation reduced incident clearance times significantly during the construction duration.

PUBLIC OUTREACH: Keeping the public involved throughout construction of this busy roadway was vital to the project's success. The Team worked with VMI, a nearby property owner, to utilize portions of their property for waste areas. After construction, these areas were redeveloped into parking areas for concerts at the venue. During construction, lane closures were required for beam erection and blasting. The Team held informational meetings that were available to the public to inform the locals of progress upcoming and traffic shifts. The Team also made sure that Virginia State Police were on site full time during traffic shifts to make drivers aware of changing roadway conditions.

ROW AND UTILITY STRATEGIES: The Team utilized the existing right of way (ROW) for all laydown and erection. Cranes utilized the ROW underneath the bridge for beam erection and storage to reduce impacts to existing utilities.

PROJECT AWARDS: This project was presented with the prestigious 2006 *Award for Excellence in Construction* from VDOT.

EVIDENCE OF GOOD PERFORMANCE | ORDERS was attentive to environmental concerns related to the installation of four cofferdams in the Maury River for bridge piers. Regulators were pleased that we chose to span the river with a temporary bridge, in lieu of the permitted causeway for a haul road. ORDERS partnered with VDOT and continuously strived to improve upon the aggressive construction schedule and earned an early completion incentive of more than \$400,000.





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: I-81 Bridge Replacement over Halls Bottom Road Sinking Creek Road Design-Build Location: Bristol, Virginia	Name: ORDERS Construction Company, Inc.	Name of Client/Owner: ORDERS Phone: 276.227.0378 Project Manager: Charlie Stokes Phone: 276.227.0378 Email: cstokes@ordersconstruction.com	04/2016	09/2018	\$11,284	\$11,354 <i>(Increased due to Owner-approved change orders)</i>	\$850

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

- SIMILARITIES TO THE I-81 PROJECT:**
- VDOT D-B Project
 - Interstate Roadway
 - Roadway Widening
 - Interstate Bridge Replacement
 - Environmental Permitting
 - Hydraulics and Stormwater Management
 - Future I-81 Widening
 - Geotechnical Engineering
 - MOT & TMP
 - Public Involvement
 - Design QA/QC
 - Construction Engineering
 - Project Management
 - Teamed with ORDERS

WRA's Bristol, TN, Richmond, VA, and Blacksburg, VA design groups prepared roadway and bridge construction improvements designs including twin 140' long bridges to carry I-81 over Halls Bottom Road and Sinking Creek as part of a design-build (D-B) project led by VDOT's Bristol District. The D-B project was managed from WRA's nearby Bristol, TN office with the same Design Manager (Mike Russell, PE, DBIA) as is being proposed for the I-81 Project. The purpose of the project is identical to that of the I-81 Project – to replace the existing structurally deficient bridges using a D-B delivery method. The existing four-span bridges were being replaced with single span structures incorporating mechanically stabilized earth (MSE) walls to shorten the original bridge length and reducing long term maintenance cost of the structures.

ROADWAY AND BRIDGE DESIGN | The roadway and bridge design incorporated the project's requirements to not preclude future widening of I-81 and to correct a substandard vertical curve while performing all work within the existing right of way (ROW). This necessitated constructing a portion of the permanent northbound (NB) bridge in the median to carry both NB and southbound (SB) traffic in subsequent phases. The first and second phases of construction in the median and NB lanes are complete. The design elements for roadway, bridge, maintenance of traffic (MOT), geotechnical, and drainage are virtually identical to those that will be encountered on the I-81 Project.

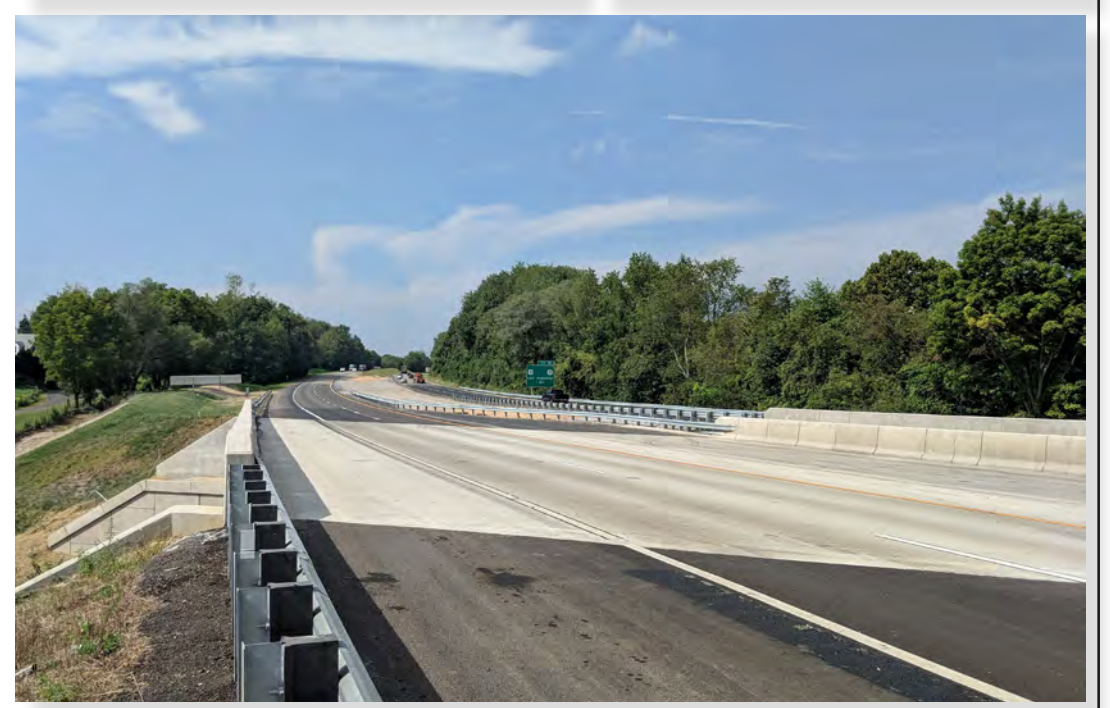
STRUCTURE DESIGN AND MAINTENANCE OF TRAFFIC | The design of the structures and MOT very carefully accommodated the extremely narrow median, as there was virtually no remaining space between the Phase 1 bridge and the existing structures. Partial demolition of the existing NB bridge, along with reduced lane widths and temporary traffic shifts along the mainline, provided adequate room to construct the bridge. Temporary detours to the median and associated temporary drainage were carefully designed to accommodate the 70 mph work zone design speed. This approach will be very similar to what will be required at the I-81 Project site.

GEOTECHNICAL ENGINEERING | Because of the karst geology in the general area of the site, the adjacent sinking stream, and visible sinkholes in the area, WRA contracted with a subconsultant to perform an electro-resistivity analysis of the site. Although low resistive values (typically indicative of clay deposits) were measured to depths of 40' which correlated the resistivity data with the soil borings to reveal that the rock in the area was conductive. The project also included the installation of a storm drain under active lanes of I-81. Close observations of the soil boring drilling operation enabled us to identify rock fill used in the embankment, which

was not apparent when reviewing the splitspoon samples and would have interfered with any trenchless installation of the storm drain. This information prompted recommendations to alter the location and elevation of the trenchless installation of the storm drain, which was ultimately recommended to be installed by conventional auger boring methods.

BRIDGE FOUNDATION | Due to the shallow bedrock underlying the project, the competency of the rock confirmed through geophysical studies, and the reduced bridge span, a "True MSE Abutment" was designed for the project. The spread abutments were designed to rest on MSE fill specifically designed to resist the added abutment load. The subgrade below the MSE walls was designed to be excavated to rock and aggregate fill used as the reinforced fill. This excavation places the leveling pad for the walls below the adjacent stream and reduces settlements for the bridge similar to a pile foundation. The single span jointless bridges utilized steel girders and buried approach slabs to reduce long term maintenance needs.

WRA TEAM ADVANTAGE | WRA is proposing the same Design Manager, Mike Russell, PE, DBIA, for the I-81 Project. This will ensure an integrated Team approach to the Project. WRA and Mike have a proven track record of delivering high-quality and innovative roadway and bridge designs on schedule. The close working relationships developed between WRA and ORDERS allowed construction related issues (which are encountered on any project) to be quickly resolved to maintain the project schedule and budget.





ATTACHMENT 3.4.1(b)
LEAD DESIGNER - WORK HISTORY FORM
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					Construction Contract Value (Original)	Construction Contract Value (Actual or Estimated)	
Name: I-81 over Route 11, Norfolk Southern Railway, and Middle Fork Holston River Design-Build Location: Smyth County, Virginia	Name: ORDERS Construction Company, Inc.	Name of Client/Owner: ORDERS Phone: 276.227.0378 Project Manager: Charlie Stokes Phone: 276.227.0378 Email: cstokes@ordersconstruction.com	04/2019	05/2022 <i>(estimated)</i>	\$29,982	\$29,982 <i>(estimated)</i>	\$2,350

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

SIMILARITIES TO THE I-81 PROJECT:

- VDOT D-B Project
- Interstate Roadway
- Roadway Widening
- Interstate Bridge Replacement
- Environmental Permitting
- Hydraulics and Stormwater Management
- Future I-81 Widening
- Geotechnical Engineering
- MOT & TMP
- Public Involvement
- Design QA/QC
- Construction Engineering
- Project Management
- Teamed with ORDERS

WRA teamed with ORDERS Construction Company, Inc. on this 0.7-mile, \$29M design-build (D-B) bridge replacement project in VDOT's Bristol District. This project is directly relevant to the I-81 Widening project from several perspectives, including: geometric interstate design for future widening, and maintenance of traffic (MOT); development of complex construction sequencing and MOT schemes that incorporated the use of temporary wire walls and special design median barrier to accommodate the bifurcated I-81 NB and SB travel lanes; design of innovative drainage and stormwater management facilities; and cost-effective structural designs that reduce construction costs and property impacts. This project is currently under construction, with WRA continuing to provide engineering support throughout the construction phase.

ROADWAY DESIGN | WRA's design simplified project construction by adjusting the RFP Conceptual alignment with shorter connections to existing I-81 on both sides of the replacement bridges. The substandard superelevation of the existing horizontal curves within the project area is being upgraded to meet current VDOT standards and improve driver comfort and expectations as they approach and depart the bridge in both directions. This design improvement also eliminated the widening of I-81 Northbound (NB) to the outside (as proposed by the RFP Conceptual Design), simplifying construction and MOT.

STRUCTURE DESIGN | WRA's design feature was a bridge replacement structure with a constant 2% cross slope in the same direction for both I-81 NB and Southbound (SB). The results are smoother and safer transitions to the bridge, especially in the NB direction. An additional benefit of this design improvement was an increased vertical clearance over Route 11 by raising, instead of lowering (as the RFP plans depicted), the eastern half of the bridge. The refined I-81 profile, modified bridge cross slope, increased vertical clearance to achieve the required vertical clearance over both Route 11 and the Norfolk Southern Railway (NSR), and eliminated unnecessary reconstruction of Route 11, saving VDOT an estimated \$1.5 million.

DRAINAGE AND STORMWATER MANAGEMENT DESIGN | WRA's design reflected innovative drainage and stormwater management design techniques that reduced initial project cost and long-term maintenance considerations. The final project design combined multiple culverts into a single crossing of I-81 and combined multiple outfalls of the median drainage into a single outfall for each side of the bridge. WRA's design eliminated 11 RFP-plan proposed cross pipes (directional bores) beneath I-81 and/or outlet pipes beyond the I-81 NB and SB shoulders. WRA's stormwater management design incorporated Virginia Department of Environmental Quality (DEQ) Part II-B Regulations (Runoff Reduction Method) and Nutrient Credits, hydrologic and hydraulic analysis (H&HA) "No Rise" modeling, scour analysis of major stream crossing, and design of storm sewer and open channel. The project design also required innovative design of temporary and permanent drainage systems to accommodate maintenance of traffic operations, permanent conditions, and to reduce the number of construction operations to transition from temporary to permanent conditions.

WRA TEAM ADVANTAGE | WRA is proposing the same Design Manager and core Roadway and Bridge team for the I-81 Salem Widening Design-Build Project. This will ensure an integrated team approach to the project that has a proven track record of delivering high quality and innovative roadway and bridge designs on schedule. The close working relationships developed between WRA and Orders has allowed construction related issues (which will be encountered on any project) to be quickly resolved to maintain the project schedule and budget.





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					Construction Contract Value (Original)	Construction Contract Value (Actual or Estimated)	
Name: I-81 Bridges over Buffalo Creek Location: Rockbridge County, Virginia	Name: Fairfields Echols, LLC (Fairfield Skanska, Inc.)	Name of Client/Owner: VDOT Phone: 540.332.7724 Project Manager: Wayne Nolde Phone: 540.332.7724 Email: wayne.nolde@vdot.virginia.gov	08/2004	07/2007	\$27,151	\$28,897 <i>(Increased due to Owner-approved change orders)</i>	\$2,221

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

SIMILARITIES TO THE I-81 PROJECT:

- VDOT Project
- Interstate Roadway
- Roadway Widening
- Interstate Bridge Replacement
- Hydraulics and Stormwater Management
- Future I-81 Widening
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- Public Involvement
- Design QA/QC
- Project Management

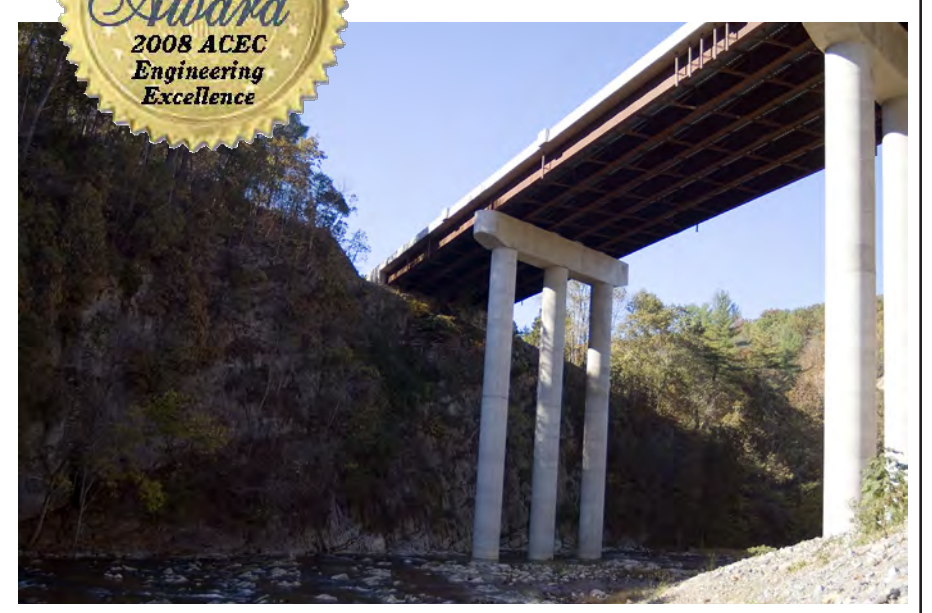
WRA was the Lead Designer and completed approximately 90% of the design from our Richmond, Virginia office. The bridges had reduced shoulder width and were classified as functionally obsolete. The project was to be the first part of the I-81 reconstruction efforts and were designed to widen I-81 from four to six lanes.

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

HYDRAULIC ANALYSIS | The project required a detailed hydraulic analysis of Buffalo Creek 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. Three stormwater management facilities were designed for the projects and all existing corrugated metal drainage pipes were replaced requiring the boring and jacking of several pipes. The project also included the design of the extension of two box culverts.

GEOTECHNICAL ENGINEERING | WRA provided all geotechnical engineering services for the project, which included an extensive testing and boring program to locate potential karst features. WRA's geologists performed extensive site visits and used dye testing to identify underground stream features that may have impacted the project design. At the Buffalo Creek northbound (NB) 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' on I-81 was a main focus of the design. The bridges were on independent alignments and grade with approximately 1,000' distance between the roadways. The NB bridge design presented additional challenges because of the requirement for the bridge to be constructed in two stages just downstream from the existing bridge, as well as the site topography. Alignment studies also revealed the need to raise the profiles of the bridges approximately 8' to meet current Federal



Highway Administration (FHWA) Interstate Design Standards. The design consisted of continuous hybrid steel plate girder bridges with the following span configurations: NB Bridge: 137'-166'-166'-137' = 606'; and the Southbound (SB) Bridge: 138'-154'-154'-138' = 584'. The NB Bridge was on a curved alignment, while the SB Bridge a tangent alignment. Both bridges required tall piers of up to 110 feet in height due to the depth of the gorge. The Buffalo Creek bridges featured an innovative design element for the treatment of the deck joints at the abutments. The ends of the steel girders are encased in a concrete diaphragm that is integral with the deck and located just beyond the bearings. The deck joints were tooth expansion joints that were located on the abutment side of the concrete diaphragm. VDOT included the detail in the Design Guidelines as a special alternative joint detail known as the Virginia Abutment. The design of the bridge was carefully coordinated with VDOT to ensure that it would accommodate future widening of I-81 to four lanes in each direction.

TRANSPORTATION MANAGEMENT PLAN | The sequence of construction and maintenance of traffic (MOT) required all existing travel lanes to remain open during construction. This required a phased construction of the bridges. The Buffalo Creek NB bridge was constructed in two phases, while the SB bridge was shifted into the median and constructed in a single phase.

PUBLIC INVOLVEMENT | WRA provided all presentation materials and participated in the Design Public Hearing for the project

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

WRA TEAM ADVANTAGE | WRA's experience designing bridge replacement on I-81 is unmatched. We are proposing many of the same roadway and bridge Team members responsible for the I-81 Project. This experience will be leveraged extensively during the design on the MOT, roadway and, bridges.



in association with Lead Designer



Joint Venture

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