VDOT
Virginia Department of Transportation

Original

Request for Qualifications

Albemarle Intersection Bundling, Design-Build

Contract ID Number: C00111814DB103

Submitted by

Curtis Contracting Inc.

In Association With

WALLACE MONTGOMERY

August 21, 2018

P.O. Box 769
West Point, VA 23181
Phone: 804.843.4633
Fax: 804.843.2545

Attachment 3.1.2 Statement of Qualifications Checklist and Contents

ATTACHMENT 3.1.2

Project: 0250-002-956

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	**i-iii**
Acknowledgement of RFQ, Revision and/or Addenda	Attachment 2.10 (Form C-78-RFQ)	Section 2.10	no	**iv**
Letter of Submittal (on Offeror's letterhead)				
Authorized Representative's signature	NA	Section 3.2.1	yes	**1**
Offeror's point of contact information	NA	Section 3.2.2	yes	**1**
Principal officer information	NA	Section 3.2.3	yes	**1**
Offeror's Corporate Structure	NA	Section 3.2.4	yes	**1**
Identity of Lead Contractor and Lead Designer	NA	Section 3.2.5	yes	**1**
Affiliated/subsidiary companies	Attachment 3.2.6	Section 3.2.6	no	**Appx. 3.2.6**
Debarment forms	Attachment 3.2.7(a) Attachment 3.2.7(b)	Section 3.2.7	no	**Appx. 3.2.7**
Offeror's VDOT prequalification evidence	NA	Section 3.2.8	no	**Appx. 3.2.8**
Evidence of obtaining bonding	NA	Section 3.2.9	no	**Appx. 3.2.9**

ATTACHMENT 3.1.2

Project: 0250-002-956

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	**Appx. 3.2.10**
Full size copies of SCC Registration	NA	Section 3.2.10.1	no	**Appx. 3.2.10**
Full size copies of DPOR Registration (Offices)	NA	Section 3.2.10.2	no	**Appx. 3.2.10**
Full size copies of DPOR Registration (Key Personnel)	NA	Section 3.2.10.3	no	**Appx. 3.2.10**
Full size copies of DPOR Registration (Non-APELSCIDLA)	NA	Section 3.2.10.4	no	**n/a**
DBE statement within Letter of Submittal confirming Offeror is committed to achieving the required DBE goal	NA	Section 3.2.11	yes	**1**
Offeror's Team Structure				
Identity of and qualifications of Key Personnel	NA	Section 3.3.1	yes	**2 - 7**
Key Personnel Resume – DB Project Manager	Attachment 3.3.1	Section 3.3.1.1	no	**Appx. 3.3.1**
Key Personnel Resume – Quality Assurance Manager	Attachment 3.3.1	Section 3.3.1.2	no	**Appx. 3.3.1**
Key Personnel Resume – Design Manager	Attachment 3.3.1	Section 3.3.1.3	no	**Appx. 3.3.1**
Key Personnel Resume – Construction Manager	Attachment 3.3.1	Section 3.3.1.4	no	**Appx. 3.3.1**
~~Key Personnel Resume – Utility Coordination Manager~~	~~Attachment 3.3.1~~	~~Section 3.3.1.5~~	~~no~~	
~~Key Personnel Resume – Right of Way Manager~~	~~Attachment 3.3.1~~	~~Section 3.3.1.6~~	~~no~~	
~~Key Personnel Resume – Lead Roadway Engineer~~	~~Attachment 3.3.1~~	~~Section 3.3.1.7~~	~~no~~	

ATTACHMENT 3.1.2

Project: 0250-002-956

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	NA	Section 3.3.2	yes	**7**
Organizational chart narrative	NA	Section 3.3.2	yes	**4**
Experience of Offeror's Team				
Lead Contractor Work History Form	Attachment 3.4.1(a)	Section 3.4	no	**Appx. 3.4.1**
Lead Designer Work History Form	Attachment 3.4.1(b)	Section 3.4	no	**Appx. 3.4.1**
Project Risk				
Identify and discuss three critical risks for the Project	NA	Section 3.5.1	yes	**10 - 16**

Attachment 2.10
Form C-78-RFQ
Acknowledgement of RFQ Revision and/or Addenda

ATTACHMENT 2.10

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

RFQ NO. C00111814DB103

PROJECT NO.: 0250-002-956

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 – July 11, 2018 (Date)
2. Cover letter of RFQ Addendum #1 - August 2, 2018 (Date)
3. Cover letter of _____ (Date)

SIGNATURE

8.21.18
DATE

STEPHEN L. ORDUNA
PRINTED NAME

VICE PRESIDENT
TITLE

3.2 Letter of Submittal

August 21, 2018

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

RE: Albemarle Intersection Bundling
Albemarle County, Virginia
Contract ID Number: C00111814DB103
3.2 Letter of Submittal

Dear Mr. Stevenson:

Curtis Contracting Inc. (CCI) is pleased to submit to the Virginia Department of Transportation (VDOT) our response to your Request for Qualifications (RFQ) for the above-mentioned project. CCI provides exceptional quality in each and every project we construct. Our core values focus on quality above profit and ensure our customer is completely satisfied. With Wallace Montgomery (WM) as our Lead Designer, CCI offers VDOT a Team experienced in design-build with a shared approach to partnering and integrating innovative solutions and a proven track record of delivering successful transportation infrastructure projects, including innovative intersections and interchanges, on time and within budget.

3.2.1 Full legal Offeror name and address: Curtis Contracting, Inc., 7481 Theron Road, West Point, VA 23181.

3.2.2 Point of Contact:
Stephen L. Ordung, Vice President
7481 Theron Road, P.O. Box 769
West Point, Virginia 23181
(P) 804.843.4633 (F) 804.843.2545
s.ordung@curtiscontracting.net

3.2.3 Principal Officer:
Andrew R. Curtis, Jr., President
7481 Theron Road, P.O. Box 769
West Point, Virginia 23181
(P) 804.843.4633 (F) 804.843.2545
a.curtis@curtiscontracting.net

3.2.4 Curtis Contracting, Inc., a corporation, will be the sole proposer/entity with whom VDOT will directly contract; will undertake the financial responsibility; and has no liability limitations. Our corporate structure includes: Andrew R. Curtis, CEO; Andrew R. Curtis Jr., President; Raymond Jarvis, Vice President Finance/Secretary; and Stephen L. Ordung, Vice President Operations.

3.2.5 The Lead Contractor for the project will be Curtis Contracting, Inc. and the Lead Designer will be Wallace, Montgomery & Associates, LLP.

3.2.6 Curtis Contracting, Inc.'s affiliated companies are reported on Attachment 3.2.6 provided in the Appendix. Wallace, Montgomery & Associates, LLP has no affiliated or subsidiary companies.

3.2.7 Signed Certification Regarding Debarment Forms for Primary and Lower Tier Covered Transactions are included as Attachments 3.2.7(a) and 3.2.7(b) in the Appendix.

3.2.8 Curtis Contracting, Inc. is currently Prequalified (active status) with VDOT, vendor number **C333**. A copy of our prequalification certificate is included as an attachment to this Letter.

3.2.9 A surety letter stating the Curtis Contracting, Inc. is capable of obtaining a performance and payment bond based on the current estimated contract value, along with which bonds will cover the project and any warranty periods, is provided as Attachment 3.2.9 in the Appendix.

3.2.10 All required DPOR licenses and SCC registration information is provided as Attachment 3.2.10.

3.2.11 Our Team is committed to achieving the 9% DBE participation goal for the entire value of the contract.

The signature below affirms that the information supplied in this proposal is true and accurate to the best of our knowledge. VDOT is hereby authorized to confirm all information contained in this proposal. We are excited for this opportunity and confident that our Team will complete this project on time and within budget.

Sincerely,
CURTIS CONTRACTING, INC.

Andrew R. Curtis, Jr.
President

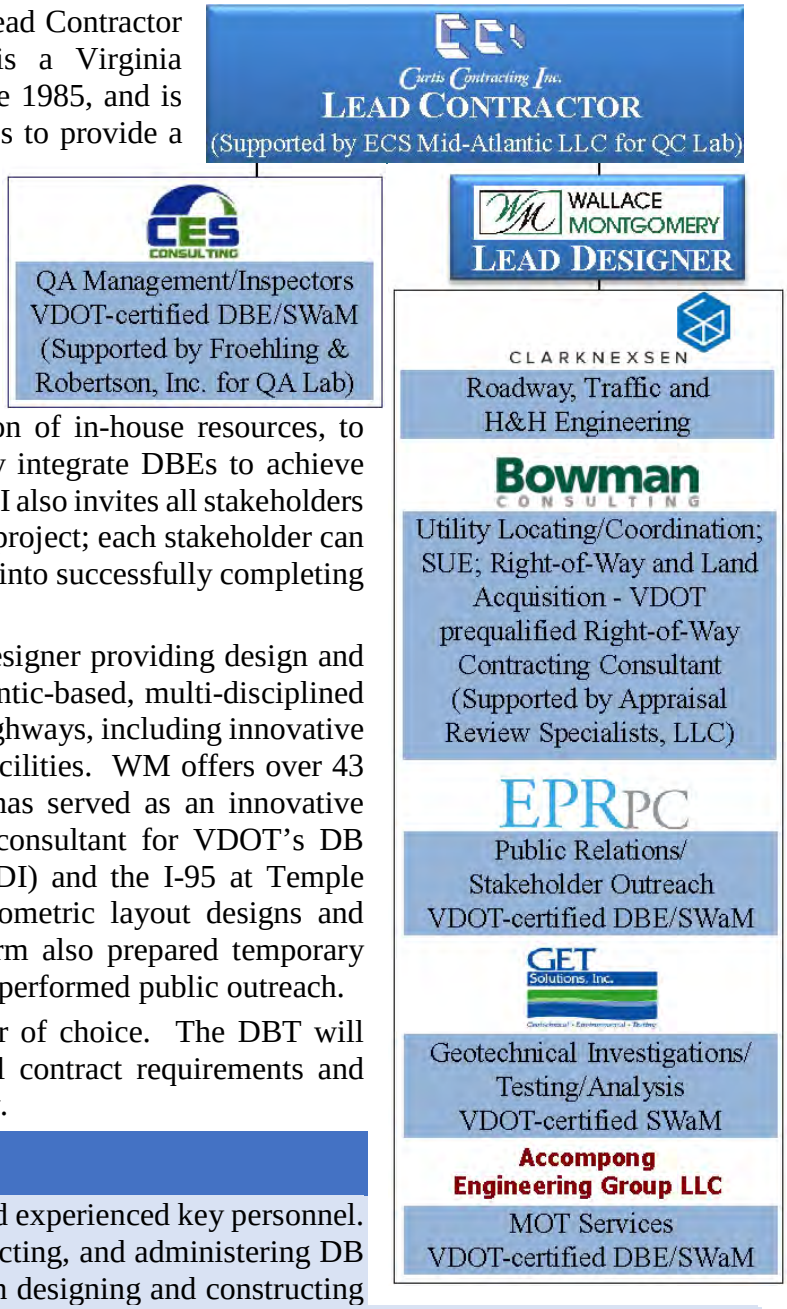
3.3 Offeror’s Team Structure

3.3 OFFEROR'S TEAM STRUCTURE

The Curtis Contracting, Inc. (CCI) Design-Build Team (DBT) was assembled with the sole intention of joining established, well-respected firms that have delivered successful transportation roadway safety and traffic operation improvements as proposed under the Albemarle Intersection Bundling elements. The DBT exceeds the experience and personnel requirements to successfully manage and deliver all the elements of the Albemarle Intersection Bundling Design-Build (DB) Project.

The DBT, including our supporting subconsultants/contractors, has experience with the Virginia Department of Transportation (VDOT). CCI, along with Wallace Montgomery (WM) as our lead design consulting firm, will employ extensive design-build and intersection/ interchange modification expertise to successfully complete these critical improvements.

Our Team



Curtis Contracting, Inc. (CCI) will serve as the Lead Contractor and provide construction quality control. CCI is a Virginia corporation licensed as a Class "A" Contractor since 1985, and is prequalified with VDOT. The company's mission is to provide a quality product on or ahead of schedule, focusing on customer satisfaction throughout the project. CCI has the expertise, personnel, equipment, and fiscal strength to successfully manage and construct the Albemarle Intersection Bundling DB Project. CCI can self-perform 95% of the construction disciplines necessary to complete the entire project. This provides a unique flexibility, and quick mobilization of in-house resources, to support simultaneous construction and appropriately integrate DBEs to achieve and/or exceed the DBE goal of 9% for the project. CCI also invites all stakeholders to take part in the design and execution of every DB project; each stakeholder can incorporate their specific, context-sensitive concerns into successfully completing the job.

Wallace Montgomery (WM) will serve as Lead Designer providing design and management services. WM is a top-rated, mid-Atlantic-based, multi-disciplined civil engineering firm that specializes in designing highways, including innovative intersections and interchanges, bridges and traffic facilities. WM offers over 43 years of transportation projects experience. WM has served as an innovative intersection/ interchange subject matter expert subconsultant for VDOT's DB delivery of the I-64 at US 15 Zion Crossroads (DDI) and the I-95 at Temple Avenue (Roundabout) projects. WM provided geometric layout designs and developed transportation management plans; the firm also prepared temporary traffic control plans, analyzed traffic operations, and performed public outreach.

This DBT is empowered to be your Design Builder of choice. The DBT will commit all necessary personnel to comply with all contract requirements and ensure that you are satisfied with our project delivery.

3.3.1 Key Personnel

CCI has assembled the following highly-qualified and experienced key personnel. Each individual has experience in designing, constructing, and administering DB projects. The DBT also has significant experience in designing and constructing overall transportation safety and traffic operation improvements. Our Key Personnel are all full-time employees in their respective firms, as shown on our Organizational Chart at the time of submitting this SOQ.

Design-Build Project Manager Steve Ordung	28 Years of Experience	DBPM for 8 DB projects	**Value to the Project**: Management of simultaneous interchange/ intersection elements with expertise in complex MOT, risk management, and stakeholder integration
Quality Assurance Manager Avtar Singh, PE, CCM, DBIA	26 Years of Experience	QAM for 2 DB projects	**Value to the Project**: Extensive VDOT QAM experience which will ensure quality project delivery
Design Manager Eric Sender, PE, DBIA	28 Years of Experience	DM for 5 DB projects	**Value to the Project**: Intersection/interchange modification expertise and integration of innovative solutions
Construction Manager Bill Richards, PE	31 Years of Experience	CM for 6 DB projects	**Value to the Project**: Extensive roadway construction experience with complex traffic control implementation

Design-Build Project Manager (DBPM) – Steve Ordung (CCI) will serve as the DBT's Design-Build Project Manager and will be responsible for successfully delivering all the project elements. Steve will be VDOT's primary point of contact. Steve will be responsible for integrating all aspects of the DB process, including design; construction; permitting; right-of-way acquisition; clearing of utilities; quality management; and DBE compliance. He will ultimately be responsible for administering the contract; as an Officer of CCI, he has the full authority to represent the company in resolving all matters with VDOT. Steve will be involved in developing and monitoring the project CPM to ensure the work is well-planned, and that all the elements are completed on-time. Steve will coordinate with project stakeholders, support public outreach efforts, and be fully accessible to answer project questions and inquiries. ***While serving as the DBPM for the I-295 Meadowville Road Interchange improvement project, Steve led his Team to achieve the National Design-Build Merit Award in Transportation from the Design-Build Institute of America (DBIA)***.

Quality Assurance Manager (QAM) – Avtar Singh, PE, CCM, PMP, DBIA (CES) will serve as the DBT's Quality Assurance Manager. He will be responsible for developing the project's quality assurance (QA) plan, performing QA inspection, and testing all the materials we use and work we perform on each project element. Avtar will have direct access to VDOT; he will not be involved in construction operations, including quality control (QC) inspection and testing. He will ensure the work, materials, sampling, and testing conform to the contract requirements and the approved construction documents. Avtar will monitor CCI's QC program. The QA Team will conduct independent and concurrent tests/analysis of the work. Avtar will maintain project quality records and approve/submit pay estimates. ***Avtar has served in this role for VDOT on the Route 29 Solutions design-build project, which was built with ABC methods and required closing Route 29 intersection movements. This work had major incentives/disincentives and was completed seven weeks ahead of schedule***.

Design Manager (DM) – Eric Sender, PE, DBIA (WM) will serve as the DBT's Design Manager and will oversee the project elements' multi-discipline design efforts and scheduling. He will ensure the designs conform with the contract documents and VDOT policies and guidelines. Eric will also be responsible for establishing and overseeing the QA/QC program for the design efforts. He will coordinate the project's clearing of utilities and right-of-way, environmental compliance, and public outreach. He will ensure that the DBT fulfills the necessary project design and objectives. Eric will remain involved with the construction process to oversee any plan modifications and shop drawing reviews. ***Most recently for the Maryland Route 404 design-build safety and operations project constructing nine miles of a divided four-lane highway, Eric developed a comprehensive final design "rolling" submissions plan and oversaw the efforts of two other prime design firms and 11 subconsultants. This plan with 246 design submissions supported a three contractor-three segmented project***.

Construction Manager (CM) – Bill Richards, PE (CCI) will serve as the DBT's Construction Manager and will manage all aspects of the project elements' construction and quality control (QC). Bill is a registered Professional Engineer in the Commonwealth of Virginia and maintains a VDOT Advanced WZTCT. He also holds a DEQ Responsible Land Disturber Certification and a VDOT Erosion and Sediment Control Contractor Certification.

Bill will be actively involved in the design process by providing constructability reviews and construction safety, staging, means and methods clarifications. During construction, Bill will be physically onsite and will ensure the materials used and work performed meet contract requirements. ***While serving as the CM for the I-264 DB project, Bill managed and modified the MOT to facilitate safely and concurrently constructed improvements for an 11-mile section of interstate and multiple interchanges over two years. Bill coordinated daily with the local governments, emergency services, state police, and representatives from major entertainment/ public venues, to accommodate their event schedules and to mitigate any traffic impacts caused by the construction efforts. The project's traffic peak period volume exceeded 185,000 VPD***.

3.3.2 Organizational Chart

The included DBT organizational chart illustrates our reporting and functional structure and notes the Key Personnel. We use solid lines to identify the reporting relationships of our Team members in managing, designing, and constructing the project. We illustrate clear reporting lines from the DBPM to the design and construction teams. Dashed lines represent indirect reporting, obligations, and/or communication. The chart also shows a clear separation and independent relationship between the QC and QA programs for construction, which includes separating between QA and QC inspection and field/laboratory testing.

Functional Relationships and Team Communications

The DBT's approach to project coordination and decision-making emphasizes teamwork and partnering within our DBT, with VDOT, and project stakeholders. Design-build is a powerful tool for innovative project delivery. However, it must be executed in an environment of mutual trust with a willingness to make decisions in real-time, while constantly monitoring the project elements' purposes, needs, and ultimate goals.

The DBPM, Steve Ordung, will be responsible for executing the work under the contract. He will oversee design and construction, coordinate with stakeholders, and manage the project risks and schedule. The DBPM will receive support from the DM, Eric Sender, PE, DBIA; CM, Bill Richards, PE; and QAM, Avtar Singh, PE, CCM, PMP, DBIA. The DM will be responsible for managing the WM Design Team to ensure quality design submittals are completed on-time. He will integrate subconsultants as a seamless extension to the WM Design Team. The CM will manage all construction activities; review the project schedule; and coordinate with the Quality Control Manager (QCM), Robert Schowengerdt, and Safety Manager, Phillip Cole, as well as site specific project managers and superintendents, to ensure all materials and work align with the contract and approved documents.

Effectively delivering a design-build project means integrating construction field staff and designers. The CM will serve as liaison between construction and design, providing a vital interface between CCI's project managers, superintendents, the DM, and the WM multi-discipline design team. The design and construction staff will collaborate to build constructability and safety into the design; minimize subsequent delays or rework; streamline reviews; integrate adequate SWM/E&S; ensure environmental compliance; and eliminate potential field issues. The DM and CM will work closely with the Utility and Right-of-Way Manager, Richard Bennett, to minimize impacts to utilities and adjacent properties. During construction, the CM will coordinate with the DM and designers to ensure that the work conforms with approved construction plans; address any required field changes; and arrange for design engineers to review construction submittals and shop drawings. The CM and Utility/Right-of-Way Manager will collaborate to prioritize scheduling of ROW acquisitions and clearing of utilities.

The CM will provide construction progress updates and will support Public Relations Manager (PRM), Bill Wuensche, PE, PTOE with public outreach efforts that address public concerns; communicate construction scheduling/look ahead activities, and changes in motorist access; and provide advance notification about temporary closures and changing traffic configurations. The DM will provide the PRM with design support data, graphics and displays. The PRM will oversee public outreach and community relation efforts; the PRM will also collaborate with VDOT to establish PR strategy. The PRM will be responsible for identifying stakeholders; engaging the public; and maintaining clear, two-way communications between the DBT, VDOT, and project stakeholders. Finally, we are proposing a dedicated Transportation Management Plan (TMP) Coordinator, Larry Marcus to oversee the element-level TMP and temporary traffic control (TTC) efforts, minimize conflicts and quality control safety issues; and assist the PRM with communicating TTC activities to the traveling public.

The QCM will report directly to the CM and will remain on the project for the duration of construction. The QCM will be responsible for administering the quality control process. The QCM will oversee preparatory meetings, and construction quality control inspection and testing for all the project elements. The QCM will be responsible for maintaining all project material logs and as-built files in accordance with the Quality Control Plan.

QA will be coordinated, but will be independent of, the daily QC and construction efforts. The QAM will receive timely notice of all construction activities so his QA staff can be on site. He will have access to all the meetings and records he needs to ensure the construction complies with contractual and design requirements. The QAM will report to the DBPM and provide VDOT with the reports and required assurances. He will have unrestricted access to the construction and fabricator sites/facilities. The DBPM will maintain constant contact with QAM.

The DBT will have internal weekly progress meetings starting immediately upon award of the Contract. These weekly progress meetings will include key construction and design staff. The meetings address project schedule; design status; permit approvals; right-of-way; utility relocations; construction progress; contract administration; safety; and public outreach. We will establish working task groups for traffic, roadway, drainage, environmental, and utilities. As the construction begins, managers, superintendents, temporary traffic control and utility coordinators, QC personnel, and the QAM will regularly attend weekly meetings. During construction, designers will continue to participate in weekly progress meetings to address any field issues in a timely manner. We will hold regular interval (monthly, bi-weekly) project coordination meetings with the DBT, VDOT, QAM, and stakeholders to enhance partnering, provide over-the-shoulder reviews, and resolve pertinent issues and concerns.

Design-Build Support Staff

To proactively mitigate risks and prevent schedule lag, we assembled a DBT that is experienced in designing and constructing similar projects. Due to the unique bundling of this design-build project, our DM, will oversee two Lead Roadway Engineers directing the design production efforts for three elements each. Our Design Team also includes essential design support specialists to develop innovative interchanges and intersections; develop a transportation management plan; and facilitate clearing the right-of-way, utilities, and environmental impacts. In addition to the key personnel that we note under 3.3.1, and whose resumes appear in Appendix 3.3.1, the DBT includes the following DB support staff to complete our DBT:

Lead Roadway Engineer, Mark Ledebur, PE (WM) will report directly to the DM and direct the design production efforts of the Rio Mills Road/Berkmar Drive connector; I-64 Exit 124 DDI; and Route 20 and Route 649 roundabout elements. He will work closely with DDI and Roundabout Design Specialists Russ Anderson and Andy Duerr. Mark will be supported by WM Hydraulics/SWM/E&S and Traffic/TTC Engineers.	***VALUE/EXPERIENCE*** – Mark is a Virginia-registered Professional Engineer with 19 years of roadway design experience including design-build. Mark has recent VDOT experience as the Project Engineer for the Culpeper District's Broadview Avenue corridor and Broadview/Shirley/Frost Avenue intersection improvements. He is applying VDOT procedures/standards to design the Farmwell Road improvements, a LAP in Loudoun County.
Lead Roadway Engineer, Ian Johnston, PE (CN) will report to the DM and direct the design efforts for the I-64 Exit 118 partial Cloverleaf modification; Fontaine Avenue ramp improvements at US Route 29 Bypass (NB); and the US Route 250 and Route 151 roundabout elements. He will work closely with Roundabout Design Specialist Andy Duerr. Ian will be supported by CN Hydraulics/SWM/E&S and Traffic/TTC Engineers.	***VALUE/EXPERIENCE*** – Ian has over 20 years of experience as a Project Engineer, Roadway Designer, and Design Manager in the consultant engineering industry. He has served six years as a Design Project Manager for the VDOT Hampton Roads District. He has a strong knowledge of state and federal guidelines and policies, including developing engineering design for roadway widenings, intersection improvements, and interchange projects.
Roundabout Design, Andy Duerr, PE (WM) will provide guidance and reviews to develop the roundabout designs. He will coordinate closely with the roadway, TMP/TTC designers, and the CM and	***VALUE/EXPERIENCE*** – Andy is a nationally-recognized expert in roundabout planning and design. He has worked on more than 220 roundabouts nationwide and 25 roundabouts in Virginia. He has

construction staff to ensure that the roundabouts are constructible and achieve all performance goals (fastest path, turn movements, sight distance).	performed roundabout peer reviews and policy support for VDOT. He will streamline roundabout design and review.
DDI Design, Russ Anderson, PE (WM) will provide guidance and reviews to develop the DDI design. He will coordinate closely with the roadway, TMP/ TTC designers, and the construction staff to ensure that the DDI is constructible; achieves all performance goals (turn movements, sight distance, multi-modal); and maximizes safety and operations during the TTC/ constructing staging.	***VALUE/EXPERIENCE*** – Russ has provided subject matter expert consultation for DDI projects. He was a Road Designer with the DBT for VDOT's I-64 and US 15 DDI at Zion Crossroads. Russ developed several staging/TTC options and coordinated with construction staff. He supported public outreach efforts to build consensus. Currently, Russ is providing guidance for PennDOT's I-83 Exit 4 DDI.
Utility and Right-of-Way Manager, Richard Bennett (Bowman) will collaboratively work with the DM, CM, and with their support staffs. He will also collaborate closely with VDOT ROW, the utility companies, and utility relocation designers. Richard will focus on impact avoidance and minimization measures through innovative design and construction means/methods. He will facilitate prioritizing and scheduling utility relocations and ROW acquisitions.	***VALUE/EXPERIENCE*** – Richard has more than 50 years of experience. He spent 37 of these years with VDOT, providing utility and ROW acquisition management services. Richard currently performs these efforts with Bowman. His utility coordination background includes utility conflict analysis and designs of relocations. His ROW management acquisition background includes title research, appraisals and valuations, negotiations and closings.
Public Relations Manager, Bill Wuensch, PE, PTOE (EPR) will work closely with VDOT and the DBPM to develop and implement a comprehensive public outreach effort. His integration with construction operations will keep the DBT focused on building consensus and trust. He will serve as an internal sounding board for the DBT.	***VALUE/EXPERIENCE*** – Bill has nearly 20 years of experience working on transportation projects in and around Charlottesville. Bill has been acting City Traffic Engineer on three occasions, and currently serves as a JAUNT Board Member on the Regional Transportation Partnership committee. He knows the local players, politics, and transportation conditions.
TMP Manager, Larry Marcus (WM) will oversee developing and implementing an effective overall program transportation management plan and for each element. Larry will coordinate closely with the design teams, CM, TTC coordinator, and safety manager. He supports the DBPM to balance construction progress, traveler mobility, and public awareness to complete the projects quickly while minimizing delay and maximizing safety.	***VALUE/EXPERIENCE*** – Larry has over 30 years of experience including design-build high profile projects. He was a VDOT NOVA Megaprojects GEC Program Manager for all traffic and TMP activities. He will ensure the TMP adheres to work zone requirements, prioritizing safety for motorists, workers, and all multi-modal users. He understands stakeholder communication is a key component to the success of the TMP and bundle delivery.
QC Manager, Robert Schowengerdt (CCI) will report directly to the CM and direct the QC effort for the project. In addition, Robert will communicate with the QAM to ensure that all QA needs are met, to include providing all deliverables and coordinating the schedule of items such as hold points, preparatory meeting and QC testing.	***VALUE/EXPERIENCE*** – Robert has performed as the QC Manager on multiple DB roadway projects, to include the Midlothian Turnpike DB and Virginia Capital Trail DB projects. Robert has worked with the CM, as well as the QAM firm, on other DB projects, bringing continuity of a successful team to this project.
Safety Manager, Phillip Cole (CCI) will report directly to the CM and will be responsible for the overall project Safety Plan, to include the protection of the traveling public, worker safety and adherence to all local, state and federal safety regulations.	***VALUE/EXPERIENCE*** – Phillip has been the Safety Manager for CCI since 2014. Phillip has developed the current CCI Safety and Training Program ensuring all CCI Superintendents and Foremen are OSHA 30-hr certified.

Project Stakeholders

UVA, UVA Foundation, UVA Research Park, Martha Jefferson Hospital, Peter Jefferson Office Park, City Neighborhood Association, JAUNT/Paratransit Providers, Nelson Chamber of Commerce, Tourism Sites (wineries/ breweries), Wintergreen Resort/ Destination, Charlottsville Garden Club, Luck Stone Quarry, Regional Commuters, EMS Providers, FHWA

VDOT Culpepper District Office of Communication

VDOT

Public Relations
Bill Wuensch, PE, PTOE (EPR)

Design-Build Project Manager
Steve Ordung (CCI)

Quality Assurance Manager
Avtar Singh, PE, PE, PMP, DBIA (CES)

Quality Assurance

QA Inspectors
CES

QA Lab
Froehling & Robertson

Design Manager
Eric Sender, PE, DBIA (WM)

Design QA/QC
Tony Mawry, PE (WM)
David Bradshaw, PE (CN)

Construction Manager
Bill Richards, PE (CCI)

DESIGN TEAM

DDI Design
Russ Anderson, PE (WM)

Highway Engineers
Mark Ledebur, PE (WM)
Ian Johnston, PE (CN)

Roundabout Design
Andy Duerr, PE (WM)

Traffic Engineering/TTC
Bob Evans, PE, PTOE (WM)
Whitney Duffy, PE, PTOE (CN)

Hydraulics/SWM/E&S
Diane Durscher, PE (WM)
John Keenan, PE (CN)

TMP Manager
Larry Marcus (WM)

Landscape
Walt Cole, PLA, ASLA (CN)

Traffic Analysis/IMR
John Rectanus, PE, PTOE (WM)

Structures
Dave Borusiewicz, PE, DBIA (WM)

Utility Locating
Justin Lilly (BC)

Geotechnical
Camille Kattan, PE (GET)

Utility/Right-of-Way Manager
Richard Bennett (BC)

Pavement
Roberto Barcena, PE (WM)

Field Surveys
Nick Kougoulis, LS (BC)

NEPA/Environmental
Ray Moravec, PE (WM)

Environmental Permits
Jessica Klinefelter, CEP (WM)

Utility Owners
Comcast; Dominion Energy, City of Charlottsville; Albemarle Co Svc Authority; AT&T; Century Link; Level 3; Lumos Network; Lightower Fiber; Quest; UVA Fiber; Riviana River Water and Sewer Authority

VDOT Right-of-Way Staff

Environmental Agencies
USACOE, VDEQ, VDHR

CONSTRUCTION TEAM

Project Managers
Steve Stepnowski (CCI)
Joseph Wall (CCI)

Roadway/Grading Superintendent
Ron Hansford (CCI)
Bill Solomon (CCI)

TTC Coordinator
Scott Peay (CCI)

Safety Manager
Phillip Cole (CCI)

Utility Coordinator
Brian Faulkner (CCI)

DBE Compliance Coordinator
Crystal Rammell (CCI)

E&S Manager
Trent Lamm (CCI)

Environmental Compliance
Sam Tavai (CCI)

Construction QC

QC Manager
Robert Schowengerdt (CCI)

QC Inspectors
CCI

QC Lab
ECS Mid-Atlantic LLC

LEGEND

———	Reporting
- - - - -	Communication
🔑	Key Personnel
★	DBE Subconsultant
CCI	Curtis Contracting, Inc.
WM	Wallace Montgomery
CN	Clark Nexsen
CES	CES Consulting, LLC ★
BC	Bowman Consulting (Supported by Appraisal Review Specialists, LLC)
GET	GET Solutions
EPR	EPR, P.C. ★
AEG	Accompong Engineering Group ★ (MOT Design Support)

3.4 Experience of Offeror’s Team

3.4 EXPERIENCE OF OFFEROR'S TEAM

Lead Contractor - Curtis Contracting, Inc. (CCI) Design-Build Experience

CCI, established in 1985, has formed a successful partnership with VDOT while delivering numerous transportation roadway projects throughout Virginia. CCI's experience with VDOT design-build (DB) projects began in 2003 as part of a team to construct the Route 199 Jamestown 2007 Corridor Improvements. Since then, CCI has delivered 13 DB projects. CCI has experience as a lead contractor overseeing all aspects of design and construction including public outreach; utility impacts/relocations coordination; complex temporary traffic control; right-of-way acquisitions; environmental permitting; drainage/box culverts; traffic signalization; and overhead/ground mounted signing. *With the **I-295/Meadowville Road Interchange Improvements Design-Build project**, CCI, as the Lead Contractor, delivered (ahead of schedule) a new interchange and over 1 mile of roadway widening. A Work History Form with details of the project is included in Appendix 3.4.1. **The project was awarded a DBIA National Design-Build Merit Award in Transportation**.*

A Work History Form for the following projects is also included in Appendix 3.4.1. It demonstrates CCI's experience of similar scope and complexity with the proposed Albemarle Intersection Bundling Elements:

- **Martin Luther King (MLK) Expressway Extension Design-Build** – CCI served as a subconsultant major Contractor for the I-264/MLK Extension Interchange and widening of I-264.
- **Route 58 and 742 Interchange Improvements** – CCI was the General Contractor for the reconstruction of the VA 58/72 interchange with new on/off ramps and two single-lane roundabout termini connections.

CCI's Intersection / Interchange Improvements Experience

In addition, CCI's resume of relevant intersection and interchange improvements experience includes:

Midlothian Turnpike Route 60 Widening and Intersection Improvements Design-Build – CCI was the Lead Contractor for this $8.5M roadway capacity improvements project from Alverser Drive to Old Buckingham. The project included safety and operational upgrades at three intersections. The project included right-of-way acquisitions, utility relocations, wetland impacts permitting, and traffic signalization. *CCI completed the project ahead of the aggressive 15-month schedule in support of the County's infrastructure commitment for a new Wegman's grocery store anchored shopping center.*

Route 199 Jamestown 2007 Corridor Improvements Design-Build – CCI was the Lead Contractor for three segments of this $32M corridors improvements project. CCI's scope included the reconstruction and expansion of the Route 199/Quarterpath Road, Route 199/Jamestown Road, and Jamestown Road/Route 359. The project included right-of-way acquisitions, utility relocations, traffic signalization, complex maintenance of traffic (MOT), drainage retrofit/rehabilitation improvements and extensive public outreach/relations.

Warhill Infrastructure Development and Intersection Improvements Design-Build – CCI was the Lead Contractor for this $37M roadway capacity improvements project. CCI's scope included the reconstruction and expansion of the Route 60/Centerville Road intersection and the construction of a new signalized intersection at Centerville Road/Opportunity Way. Additionally, CCI constructed the roadway and associated infrastructure to support the development of the 500-acre Warhill site. Infrastructure scope included right-of-way acquisitions; utility relocations; traffic signalization; MOT; drainage improvements; and public relations.

Lead Designer - Wallace Montgomery (WM) Design-Build Experience

As Lead Designer, WM delivered its first DB project, Middletown Road Phase 1B2 Realignment/ Capacity Improvements for Charles County, MD, in 2006. Since then, WM has served as Lead Designer providing full services transportation, civil, and structural engineering service for five other DB projects, including recently the AASHTO award-winning Maryland Route 404 Corridor Safety/ Operations Improvements project and the I-95 Contee Road Interchange DB project. WM has applied innovative ATCs/ solutions on these projects that have produced significant cost and construction time savings and minimized impacts to existing features. ***The I-95 Contee Road Interchange DB project received the 2015 Maryland Quality Initiative's (MdQI) Partnering in Construction and MDOT SHA Modal Project of the Year Awards of Excellence***.

A Work History Form for the following projects is included in Appendix 3.4.1. It demonstrates WM's experience of similar scope and complexity with the proposed Albemarle Intersection Bundling Elements:

- **I-64 at US 15 DDI (Zion Crossroads) Design-Build** – Serving as a subconsultant to the Lead Designer, WM provided traffic analyses, geometric layouts, and temporary traffic control (TTC) plans for this DDI.
- **Maryland Route 2 at Friendship / Sansbury Road Design-Build** – As Lead Designer, WM designed a roundabout at this four-leg intersection with a history of severe crashes and increasing traffic volumes.
- **Maryland Route 5 and I-95/I-495 Interchange Improvements** – As Lead Designer, WM designed modifications eliminating deficient weave operations between loop ramps along MD 5 and I-95/I-495.

WM's Intersection / Interchange Improvements Experience

In addition, WM's resume of relevant intersection and interchange improvements experience includes:

I-83 Exit 4 Interchange DDI – WM is serving as a subject matter expert on this PennDOT design-bid-build interchange modification project. We are developing the initial interchange geometrics; creating maintenance and protection of traffic plans; and reviewing final geometric and signing/marking plans of each milestone submittal.

VDOT Statewide Limited Services Term Contract for Traffic Engineering Design and Analysis (L&D) – WM is providing design and operational analyses services related to roundabouts and other innovative intersection. Currently, WM is developing roundabout concepts in constrained settings. These projects require expertise and creativity to achieve performance goals while minimizing impacts for the Route 311/419 Intersection in Roanoke and Route 612 at Williamsburg Plantation Drive in James City County.

US Route 301/MD Route 304 Interchange Improvements – As the Lead Designer, WM designed safety-related improvements to three intersections along US 301. The project replaced the existing at-grade intersection at MD 304 with a new interchange, added US 301 J-turns for MD 305, and removed an existing US 301 median crossover for Rolling Bridge Road. WM designed dual roundabouts at the MD 304 interchange's ramp termini. ***The project received the MdQI 2017 MDOT SHA Modal Excellence and a ACEC-MD 2018 Outstanding Project Awards***.

I-95 at Temple Avenue Interchange Design-Build – As a subconsultant to the Lead Designer, WM served as the subject matter expert for innovative roundabout solutions and traffic control design on this interchange modification project. WM improved the technical design by lowering the road profile through the roundabout and developing a construction scheme that reduced the number of stages and maximized work areas.

The table below summarizes the six CCI and WM work history forms that feature projects of similar scope and complexity with the proposed elements of the Albemarle Intersection Bundling Design-Build Project.

APPENDIX 3.4.1 WORK HISTORY FORMS	I-295 at Meadowville Road	MLK Expressway Extension	Route 58 and 742 Interchange	I-64/US 15 DDI Zion Crossroads	MD 2 at Friendship Road	MD 5 at I-95/I-495 Interchange
Project Relevance						
Design-Build	❖	❖		❖	❖	
Safety and Operations	❖	❖	❖	❖	❖	❖
Roundabout			❖		❖	
Interchange Ramp Modifications	❖	❖	❖	❖		❖
Diverging Diamond Interchange				❖		
New Alignment Roadways	❖	❖	❖			❖
Public/Stakeholder Outreach	❖	❖	❖	❖	❖	❖
Transportation Management Plan	❖	❖	❖	❖	❖	❖
Innovative TTC/Staging Solutions	❖	❖	❖	❖	❖	❖
Impacts Avoidance/ Minimization	❖	❖	❖	❖	❖	❖
Utility Coordination	❖	❖	❖	❖	❖	❖
Culvert/Drainage Modifications	❖	❖	❖	❖	❖	❖
Environmental Permitting	❖			❖	❖	❖
Traffic Signalization	❖	❖	❖	❖	❖	❖

3.5 Project Risks

3.5 PROJECT RISKS

Every design-build project has risk, and the Curtis Contracting, Inc. (CCI) Design-Build Team (DBT) is prepared to take on the risks for the Albemarle County project elements. We will manage project risks using our formal risk management approach endorsed by the Construction Management Association of America (CMAA). Through this process, the Team can identify risks, potential impacts to the project and schedule, and mitigation strategies for each issue. This risk register includes the following five steps:

1. Identify Risks, including their causes and effects, possible consequences, and responses
2. Qualitative Risk Analysis, where we assign a probability of occurrence, and categorize by severity
3. Quantitative Risk Analysis, quantifying the severity, exposure, and impact on time and cost
4. Plan Risk Responses, identifying minimization and avoidance measures, defining response plans and actions, establishing who is responsible for the risk, and managing the response
5. Monitor Risks, where we track and assess outcomes and trends, closing risks that no longer apply

The entire DBT has reviewed the available project information; visited each of the project sites; read the local news and blogs; and performed "desktop" assessments of the environmental, geotechnical, and traffic conditions for each of the project elements. Our design and construction team members evaluated the various project risks and have identified the following three primary risks for the DBT to monitor and manage for the successful delivery of the six elements' proposed improvements:

- **Securing and maintaining public support**
- **Delays resulting from utility coordination and relocations**
- **Safety of roadway users and workers**

Critical Risk #1 – Securing and Maintaining Public Support

The DBT understands that "everyone is a transportation engineer", and some will see the proposed solutions – and temporary impacts during their implementation – in a negative light despite all the planning and outreach completed to date. Well-planned outreach and education before, during, and after construction is key to securing buy-in and ultimately project success. A strategic public involvement plan with defined goals, objectives and key messaging will raise awareness, develop public support, and ensure safety for motorists and project crews, as well as cyclists and pedestrians.

Why this Risk is Critical: The citizens and stakeholders in the Charlottesville/ Albemarle region are very active in local planning and infrastructure efforts. The City, County, and VDOT have invested resources towards public and stakeholder participation, including the sharing of project information and the ability for citizens to easily provide feedback. There is a high "bar" in this region in terms of disseminating information and citizen feedback loops. Failure to sustain this high level of engagement with stakeholders could result in political pressure to delay, modify designs, and disrupt construction activities which unnecessarily prolong or raise the cost of the project.

Prior to construction, the community's lack of awareness about the project elements and their impacts, benefits, and right-of-way issues may cause negative perception. During construction, the project elements will create traffic disruptions and new traffic patterns for motorists; transit; emergency responders; service providers; adjacent businesses; residents; non-motorized users; and others. After completion, new roadway configurations may confuse motorists or increase travel times for select users.

Six-year-old Chloe Leong of Charlottesville was killed in a head-on collision at Routes 20 and 649 in 2014. Her family tends to her roadside memorial, which is within the anticipated disturbed area for the new roundabout. The DBT will work closely with VDOT staff during design and construction to identify a new location for Chloe's memorial.

Risk Impact: If the public relations effort is not done well, the project elements can get delayed. Subsequent political and media pressure can generate opposition challenging the ability of both VDOT and the DBT to execute these project elements on time and within budget. Three of the elements include innovative intersection designs (DDI and two roundabouts). Stakeholders must be educated on how to navigate them; otherwise future safety concerns and public opposition may result. During construction, the public must understand how to safely navigate the work zones to reduce frustration and comprehend their benefits upon completion. First responders must be directly advised of traffic shifts to ensure timely response to calls; it is essential to maintain communication with the local fire station, rescue squad, and police precincts near each element. The DBT will address specific public affairs risks:

- Motorists from out of the region and unfamiliar with the project, such as new UVA students, those attending sporting events, or taking historic or winery tours must be given adequate wayfinding signs.
- With only about 100 DDIs in the nation, and few roundabouts on high speed rural roadways in the area, lack of awareness and education of new traffic patterns may be confusing and lead to safety concerns.
- The permanent access change at Hansens Mountain Road and US 250 near Exit 124, requires that residents wishing to get to I-64 to, now, make a right turn and then a U-turn at the nearby Peter Jefferson Parkway signal. They may not see the added travel time as a good trade-off for improved safety.
- Communication with property owners where the DBT must acquire right-of-way is key, as there is potential for complaints, delays, and legal proceedings. The US 250/VA 151 roundabout requires partial acquisition of an adjacent property to the north owned by Graves Homes LLC. The VA 20/649 roundabout could impact up to four properties. The Rio Mills Connector requires coordination with the Horne Lane Corporation to maximize its developable land and maintain safe access to development and the quarry.

Risk Mitigation Strategy: The DBT will develop a detailed public involvement plan in collaboration with VDOT and Albemarle County/ local jurisdiction staff that will be integrated into the TMP to inform, educate, and engage the public and stakeholders to minimize the risk in the following areas:

1. Public unease with accepting alternative intersections (DDI or Roundabout)
2. Impacts to travel time during construction
3. Traffic detour or diversion impacts during construction
4. Adjacent site and multimodal access and safety during/ after construction

This effort must be led by a local, strong and knowledgeable leader and integrated across all six project elements during design and construction. Bill Wuensch, PE, PTOE, is the DBT's Public Relations Manager. He has been involved in planning, engineering, design, and construction of projects in Charlottesville and Albemarle County for over 16 years. Bill has served as Charlottesville's Acting Traffic Engineer on three occasions. He will be assisted by Mike Callahan who has led challenging public engagements nationwide. Mike most recently led the engagement with the Rio Road/Route 29 Land Use Plan for Albemarle County. These local team members know the communities and bring our DBT a view of the operations and political perspectives of the region.

The DBT will identify stakeholders and use a context-sensitive approach to engage them at design through project completion. Stakeholders will include but are not limited to: City of Charlottesville; Albemarle County staff; CA-MPO; Charlottesville Area Transit (CAT); emergency responders; UVA; Albemarle County Historic Preservation Committee; Charlottesville Bicycle Club; Luck Stone Quarry; utility providers; and surrounding businesses and residents.

Through our project experience on other VDOT projects, the DBT demonstrates an understanding of VDOT operations and the importance of public outreach. We will utilize proven PR practices that inform and

Summary of Communication Strategies to be Employed

- *Educational outreach materials (brochures, videos)*
- *Frequent updates to the project website*
- *Conduct public and community level meetings*
- *Provide roadside information message boards*
- *Close coordination with local media*
- *Presentations to BOS and City Council*
- *Traffic control communiques (changes, shifts)*
- *Direct communication via e-mail, flyers*

engage, to heighten awareness and minimize impact. Messaging will focus on safety and benefits. Our DBT will develop a brand for outreach materials and engage stakeholders via transparent communication strategies.

Public unease with accepting alternative intersections (DDI or Roundabout)

As transportation professionals, we know the benefits and proven performance and safety record of innovative intersections. However, the public is often skeptical of these designs. Users must be educated on the improved safety and congestion benefits these elements will yield. The DBT will proactively engage the public through the stakeholder organizations as these designs are being implemented, using renderings and head-to-head video simulations of existing versus new conditions to show operations improvements and build consensus.

Impacts to travel time during construction/ Traffic detour or diversion impacts during construction

Peoples' time is precious. Commuters choose routes in part based on travel time reliability. When travel times increase, drivers seek different routes. Our outreach campaign will clearly and honestly show the expected levels of congestion and travel time impacts during the various stages of construction. We will advise of any detours or suggested alternate routes using multiple methods that include direct communication with major employers and neighborhood associations in proximity to the Project, such as website, email, media outlets, and variable message signing. If traffic detours or diversions be necessary, our DBT will ensure routes can accommodate all vehicles and model traffic conditions for detour routes. Direct communications with the TOC and City will be critically important so that signal timings can minimize delays. The public involvement plan is an integral part of the TMP.

We will apply "lessons learned" on the Albemarle Intersection Bundling Project's public and stakeholder outreach from our experience on these VDOT design-build projects:

- *The first DDI in Virginia, at nearby I-64 and US 15*
- *I-264 Pavement Rehabilitation in Virginia Beach*
- *I-95/Temple Ave Roundabout*

Adjacent site and multimodal access and safety during/after construction

The six project elements are on several of the major routes into Charlottesville, and we will adjust the construction schedule to minimize the number of impacted routes at a given time. The DBT will maintain access to businesses and sustain routes to UVA (especially during sporting events, graduation), as well as provide guidance to access the many craft breweries, wineries and resorts. Establishing clear communication with roadway users, motorized and non-motorized, about how to traverse the work zone and what to expect from day to day will maximize safety. The DBT will use a targeted and multi-faceted approach to disseminate information to stakeholders.

Where right-of-way is required, engaging the property owners in the design process and communicating the needs and potential "betterments" that can be included in the work may help to secure "buy-in" and avoid delays. We anticipate four of the six projects will require partial acquisition or easements on adjacent properties, and many require reconstruction of driveway entrances. We will proactively work with the property owners to identify "betterments" to demonstrate goodwill and reinforce positive perception of VDOT and the project. At the I-64 Exit 124 DDI, the DBT will explain the safety benefits of the change at Hansens Mountain Road and identify potential alternatives to reduce travel time impacts; proactively communicate traffic shifts and timelines for access changes; and maintain three-way communication between us, the community, and VDOT.

Role of VDOT and Other Agencies: We recognize that effective communication with the Northwest Region Transportation Operations Center (NWRO TOC) will be essential to sharing the message to the CMS network. The DBT has an established relationship with the TOC staff and will coordinate work through two-week "look-aheads", keeping the public relations team informed of upcoming traffic changes or other potential issues.

The Culpeper District and its Public Relations Manager have traditionally been in the forefront of public engagement. For this project, VDOT's role will be to review and approve the DBT's Public Involvement Plan, provide the latest templates, and identify the local preferences for outreach. Our Public Relations Manager will prepare all necessary public releases and documents (boards, videos, etc.) for VDOT review prior to distribution.

Critical Risk #2 – Delays Resulting from Utility Coordination and Relocations

Utility franchise owners have one primary goal, and that is ensuring that their product gets to their customers. The DBT understands though that reconstructing established facilities is typically not high on their priorities.

Therefore, a proactive coordinator is required to get each franchise owner involved in project scoping; securing as-builts; identifying any new or replacement facilities within the construction sites; and scheduling design and construction of relocations. The DBT identified several buried and overhead public and private utilities located within the limits of each project element, both under existing pavement and in areas of proposed roadway widening. Franchise owners include Dominion Energy; Central Virginia Electric Cooperative; Charlottesville Gas; Albemarle County Service Authority (ACSA); Rivanna Water and Sewer Authority; Comcast; CenturyLink; AT&T; Level 3; Lumos; Lightower Fiber; Qwest; UVA Fiber; and VDOT (signals and CCTV).

Albemarle is one of the fastest growing counties in the Commonwealth. There is strong demand for extensions of water and sewer (including the VDOT Charlottesville office near Exit 124), broadband, and other essential services to existing and new subdivisions. Early collaboration fosters a win-win solution that not only enhances road capacity, but utility capacity as well.

Why this Risk is Critical: The design and relocation of overhead and underground utilities impacted by the ramp relocations and roadway widenings are critical path tasks for at least four of six project elements. The DBT does not contractually have authority over utility work. VDOT and DBTs have experienced delayed responses and delivery times for private utility relocations on past projects, which often impacts the schedule, costing time and money. Most of the utility relocations are anticipated on the Exit 124 and roundabout projects, and even if the number of relocations can be minimized, this risk is critical due to the need to identify the impact; schedule the design and relocation; coordinate the relocations with the TTC plan; and ensure that all work is completed in the 45-month schedule. Utility owners may want to run new service, especially on the Rio Mills Connector.

Risk Impact: Delays resulting from the late delivery of utility providers' designs, easement needs, and field relocations will likely have an adverse effect on the DBT's overall schedule. Utilities cannot be relocated until ROW is secured. Roadway widening cannot take place until utilities are relocated. The presence of rock has the potential to make underground relocation and the placement of poles and guys for overhead utilities a challenge.

Design reviews and approvals by public utility providers can also affect the schedule. The Service Authority reviews and approves the DBT's design of the wet utilities. Delays associated with the review/approval process could have a direct impact to the overall project schedule, since there are water and sewer mains within the project limits at several locations, including a force main on US 250 at I-64 Exit 124.

Risk Mitigation Strategy: To minimize the risk associated with the design and relocation of private utilities, the DBT intends to utilize the experience and proven capabilities of Bowman Consulting to perform subsurface utility locating; prepare advanced utility design plans; coordinate directly with providers; and manage the overall project utility relocation program. This unified approach to utility relocation management will help avoid design and construction conflicts that often result from multiple utility providers preparing their own designs "in a vacuum." Richard Bennett will serve as both the Utility Manager and the Right-of-Way Manager for the contract. He brings over 37 years of experience in both realms, and closely follows the *VDOT Utility Manual of Instructions* when carrying out tasks. Richard and his team will report to the Design and Construction Managers and will coordinate daily with the construction team's Utility Coordinator who will oversee and coordinate the field relocations for both wet and dry utilities. Conducting the advanced design process under the umbrella of a single entity such as Bowman is a significant benefit to the utility providers, the DBT, and VDOT.

We have assessed the potential impact of this risk and will use the following approach to mitigation:

❶ ***Advance Identification of Utility Easement Requirements, Coordinated with Roadway Work***: The DBT's goal is to have the roadway design and preliminary drainage/SWM, utility, and ROW needs established to a "pre-PFI" level during the RFP stage. This will provide a basis for scoping-level discussions with the service providers soon after NTP. We will prepare preliminary plans for all six project elements, but this will be especially helpful on the US 250/VA 151 roundabout, I-64 Exit 124 DDI, and VA 20/649 roundabout—which have known relocations. New power feeds are required for the signal at Exit 118 as well as new overhead sign lighting needs. The first step in the utility coordination process that Richard and the DBT will undertake is to confirm the location of existing utilities, wells, and septic fields; develop the preliminary roadway designs (including cut/fill limits and drainage/SWM needs); and identify the specific utilities impacted and right of way needs. The roadway design

team will prepare each roadway improvement overlaid onto an aerial photo and existing utility mosaic, identifying areas where there are conflicts, areas where there are potential coverage concerns, and preferred relocation areas. Conflict avoidance reviews with the construction team and franchise owners at this stage serve to ensure that all proposed utility relocations – or new services – have been designed and reviewed to prevent construction related issues/conflicts with the roadway SWM design.

❷ ***Initiate overhead/underground Dry Utility Design***: Upon formal acceptance of the proposed relocation corridors by franchise owners and the requisite ROW needs by VDOT, the DBT will initiate advance design engineering for all facilities required to support the dry utility relocation effort. Overhead utilities will be coordinated with tree removal and landscape design. Richard continues to serve as the "one-stop-shop" for utility and ROW coordination, facilitating three-way communication between the DBT, utility owners, and VDOT.

❸ ***Design the Wet Utilities and Submit Facility Design Packages*** to the utility owners for review and comment or approval. The local Service Authorities require at least 30 days for plan reviews. The formal approval of the advance design package is the beginning of the final dry utility design and cost estimate deliverable phase. Once the relocations are designed and approved by the provider, and the easements secured, the team can order materials and equipment to support the relocations. The project then enters the utility relocation phase with Richard overseeing and tracking the utility providers' schedules in conjunction with the DBT's project schedule and coordinating potential issues between the DBT, utility providers, and VDOT.

In addition to our approach described above, the DBT will also employ utility risk mitigation techniques that have proven to be successful on previous projects, including:

- Identify which utilities will most likely be impacted during the RFP stage of the procurement process
- Engage utility providers as part of the initial scoping, showing the RFP design layouts and determining if they have any independent work proposed within the project limits
- Prepare for, schedule, and facilitate the UFI meeting as early as possible to involve the utility owners in the project and begin the UT-9 process and subsequent entry into RUMS
- Include tasks with sufficient durations for utility design/review in the schedule for each utility provider Complete final utility design while acquiring ROW, so relocation can begin right after ROW clears
- Identify utility test holes that will be required and include this task as early as possible in the schedule Minimize or eliminate potential utility relocations by adjusting the roadway or storm drainage design
- Partner with utility providers to facilitate their reviews and offer recommendations where appropriate Maintain an "issue resolution chart" to keep designs and reviews moving forward
- Clearly identify all overhead utilities with flags and signage

Role of VDOT and Other Agencies: The DBT fully expects to manage the risk associated with utility relocations. No role is anticipated from VDOT or any other state agency other than standard coordination and plan reviews, and processing forms (e.g. UT-9). The DBT will coordinate directly with the VDOT District Traffic and ITS teams with respect to the new traffic signals, CCTV cameras, and VDOT fiber installations.

Critical Risk #3 – Safety of Roadway Users and Workers

The DBT understands the importance of a TMP that links the temporary traffic control (TTC) plans, traffic operations and incident management, sequence of construction (SOC), and public outreach for the life of the project. Drivers are more reliant on navigation systems, and as a result, temporary traffic shifts and even the new configurations (ramp locations, posted speed changes, etc.) need to be clearly communicated to motorists. Reducing the number of traffic shifts, ideally keeping the existing configuration and then shifting to the new one with no intermediate shifts, helps reduce driver confusion and the potential for crashes. Minimizing conflict between roadway users and trucks/equipment accessing the work zone is an essential part of the TMP as well. The DBT wants everyone–motorists and workers alike–to get home safely to their families, and as such we ensure there are adequate temporary barriers, signage, PCMS, and incident management resources to make it happen.

Why this Risk is Critical: The traffic mix in this area is a blend of commuters who are "conditioned" to their drives, and visitors who may be unfamiliar with the area. Lane shifts, narrow lanes/shoulders, and temporary lane

closures all require heightened driver awareness, as the margin for error is reduced. Advance notices to residents, businesses, police/fire/EMS, major stakeholders, and motorists – through public involvement and work zone communication – is essential to increase awareness of these traffic pattern and speed changes. Given the high traffic volumes and new traffic patterns for the DDI, this could hold especially true at Exit 124, where US 250 has posted 45 mph speeds and the DDI operating speed is typically 25 to 30 mph. Similarly, there is limited sight distance and a 45-mph posted speed on VA 20 near VA 649, and the proposed roundabout requires drivers to slow to roughly 25 mph. The posted speed on US 250 at VA 151 is 55 mph, and the new roundabout will require drivers to slow there as well. At Exit 118, drivers on southbound US 29 accustomed to being in the right lane to access I-64 eastbound will now need to shift to the left lane to exit. Visitors to the area may not have updated GPS units, and positive guidance is needed to limit abrupt lane changes and properly guide them through the work zones. Crashes, no matter how minor, put VDOT and the DBT in a negative light and increase the potential for lawsuits.

The DBT has used work zone speed limits on similar DDI and rural roundabout projects to not only improve safety for all, but to also "condition" drivers to the speeds required for the final designs. We strive to limit the number of traffic shifts and incorporate the final traffic pattern as soon as possible.

Risk Impact: Construction zones require heightened driver awareness, lower speeds, and clear lines of sight. The TMP must adequately address the safe movement of motorists, non-motorized roadway users, and construction equipment within and around the work zone.

- **Safety** – Vehicles being led into or through an active work zone must be protected from one another and from construction activities. If there isn't adequate sight distance and decision time for motorists, there is greater rear-end, angle, and sideswipe crash risk. The TTC plans for the Fontaine Avenue, Exit 118, and Exit 124 elements must ensure that backups do not occur onto the I-64 or US 29 mainlines, and that speed differentials in adjacent lanes are kept to a minimum. Mainline queuing results in increased rates of rear-end and sideswipe crashes. Although pedestrian and bicycle traffic are not significant at each location, safe passage must be considered for these vulnerable users when developing the TMP.
- **Mobility** – Safe movement of traffic through the work zone is essential. Delays that drivers perceive as avoidable, such as improperly timed signals, could result in negative feedback or worse, road rage on the project. Roadway users want consistent travel times, and incidents result in lost production.

Ultimately, there are several costs involved with this risk. Delay costs due to inadequate work zone management negatively affect overall productivity and quality of life. Crashes have direct costs, including repair costs, delay costs, and the medical costs and loss of earnings due to injuries.

Risk Mitigation Strategy: The key to mitigating this risk is to develop a detailed TMP coordinated closely with traffic operations, incident management, and public relations. We will identify "red flags" or constraints for developing the TTC plans and analyze several alternative staging plans to determine which minimizes traffic impacts while allowing for safe and efficient completion of the work. The DBT will develop a detailed TTC plan and SOC for each stage of work on each element with a focus on the safe passage of vehicular, pedestrian, and bicycle traffic while maintaining access for residents and businesses. For the DDI and roundabout elements, where the final configuration requires lower speeds, we will complete work zone speed limit requests. We will prepare barrier analyses for each stage of work to ensure that workers are protected to the max extent practicable. Both the WZSL and barrier analyses will be prepared and sealed by John Rectanus, a Virginia licensed PE and PTOE.

We will perform VISSIM/Synchro analyses for each stage of work to ensure traffic flows are at an acceptable LOS during peak hours, on weekends, and special events. Signal coordination with the NWRO TOC will be an important part of the TTC plan to ensure that existing and proposed traffic signals within and adjacent to the project limits are properly timed and could be adjusted "on the fly" in the event of incidents. SOC phasing will be structured so that traffic pattern changes will be minimized during construction, with a change to the final configuration as quickly as possible. Adequate lighting will be provided for night work to maintain a safe working environment for CCI and subcontractors, and to assist motorists as they navigate through the work zone. Drainage

systems will be shown on TTC plans and evaluated to ensure there is no standing water in travel lanes, and that runoff during each phase of construction is adequately captured and conveyed. We will develop detailed incident management plans and maintain signage and materials on-site for each element that could be implemented quickly to minimize impacts to travelers and provide space for emergency services to work.

The Exit 124 project poses a unique challenge; changing the interchange from the diamond to the DDI crossover configuration. We will develop a step-by-step process for completing this shift as quickly as possible. On the Zion Crossroads project, WM identified a method that incorporated a temporary detour as well as one that used a pilot car for the work. Ultimately the temporary detour was selected, as it required half the time as the pilot car, caused fewer overall delays, and allowed work to commence out-of-traffic.

The DBT emphasizes public involvement when developing the TMP and will develop a defined program for public outreach, as detailed in Critical Risk #1. Also, we will systematically implement the TTC and SOC plans, clearly defining each traffic movement and construction phase for each project element individually. We foresee creating five site specific TMPs, one for each project element, with the I-64 Exit 118 and Fontaine Avenue ramp improvements proceeding as a single "project." The TMP for this project will include the following consideration:

- Access to Major Destinations, such as UVA, Scott Stadium, and Fontaine Research Park; major roadways and interstates, such as I-64, US 29, and US 250; and schools, neighborhoods and businesses along each project corridor will be affected during construction. The DBT will ensure that the thousands of affected motorists are aware of the changes and duration of impacts.
- TMP Stakeholder Input: Our strategy includes having a draft TMP prepared at scoping for each element that includes conceptual TTC, incident management, and public outreach/communication plans. We envision partnering with VDOT, City of Charlottesville, Albemarle County, UVA, businesses and homeowner associations to get input on access, TTC alternatives, and communication methods.
- Temporary wayfinding signs will also be an important part of ensuring that access to businesses and points of interest within the work zone and beyond is clear and defined. Wayfinding signs during construction is a proven method for helping motorists and visitors find their way through construction zones and helps improve the "bottom line" for businesses impacted by construction.
- Temporary lane shifts and turning movements will be designed using a WB-62 design vehicle to accommodate truck traffic traveling along the I-64 interchange ramps, US 29, and US 250, as well as for work trucks accessing the Luck Stone quarries and active sites on VA 649. Temporary guide signs, including PCMS, channelizing devices, and pavement markings consistent with the WAPM will be provided along all temporary travel ways and checked frequently for visibility and proper placement.
- TTC Monitoring: The DBT will evaluate the implemented TTC plan for each phase, as well as queues and signal operations to determine if adjustments are needed. TTC Coordinator Scott Peay will be responsible for driving the multiple times daily to ensure that temporary measures are in place and functioning as designed and will have the authority to make changes in the field as necessary to accommodate unforeseen traffic conditions or unexpected situations.
- Pardon Our Dust Meetings: The DBT has had great success raising public awareness of impacts and traffic pattern changes via "Pardon Our Dust" meetings, geared to the public or smaller-scale stakeholder groups (e.g., homeowner associations), and scheduled to occur a few weeks prior to a major traffic switch.
- Speed Management: The DBT uses portable speed trailers on projects and has partnered with the Virginia State Police to perform passive management, as well as active "hunters" to ticket violators in work zones.
- Safety Awareness Campaigns: CCI implemented a "Orange Cones No Phones" campaign on the I-264 Rehabilitation DB project to increase motorist awareness of the upcoming work zone and reduce distracted driving with it. We placed "Orange Cones No Phones" roadway signage at the project limits.

Role of VDOT and Other Agencies: The DBT anticipates that VDOT and Albemarle County will be engaged in the TMP and TTCP review and approval process. The DBT will work closely with the VDOT District Traffic team, Public Involvement Officer, NWRO TOC (as well as the county, City of Charlottesville, UVA, and VDOT Charlottesville residency) to communicate pending traffic shifts, incidents within the work zone, and winter/scheduled maintenance activities. The DBT will coordinate with VDOT for VSP in the work zone.

3.6 Approach to Executing Work on Multiple Elements

3.6 APPROACH TO EXECUTING WORK ON MULTIPLE ELEMENTS

General Approach and Organizational Structure

The Curtis Contracting, Inc. (CCI) Design-Build Team (DBT) has a proven track record of delivering ahead of schedule and within budget design-build (DB) projects involving segmented or multiple, but separate concurrent work areas/zones. We will deliver the Albemarle County intersection bundling elements in similar fashion.

To successfully execute the Albemarle County intersection bundling contract, the DBT will provide strong overall program and individual element management with well thought out work plans involving all design and construction managers; continuous risk identification/monitoring; and proactive stakeholder engagement on scheduled traffic impacts in consideration of local and regional events. We will seek innovative ATCs/solutions to enhance quality and safety, improve traffic operations, accelerate construction, add value, and reduce construction and long-term maintenance costs. We understand how to reap the schedule benefits of DB while operating within the constraints of NEPA, FHWA, and the VDOT Project Development Process. This contract will require efficiently completing the IMRs for the two interchange modifications and potentially NEPA re-evaluations for incorporation of ATCs and final design refinements.

We have a deep and diverse team with the local experience and specialty expertise to commit to VDOT. Wallace Montgomery (WM) with subconsultant support from Clark Nexsen (CN) will provide necessary depth of staff to design, prepare construction documents, and secure approvals for multiple elements simultaneously. With the innovative interchange and intersection configurations included in the project bundling, WM offers subject matter experts in DDI and roundabout design. For expediting the clearing of right-of-way (ROW) and utilities, Bowman Consulting will lead utility relocations coordination and ROW acquisitions for the DBT. Understanding the importance of stakeholder and public engagement, EPR, P.C. adds that local knowledge of the seasonal events, stakeholders, and successful outreach and communication techniques. This knowledge will be applied across the entire bundle travel impact area, and continuously shared between all DBT team members.

Elements Design and Construction Approach

The DBT sees the six elements of the project as really five separate standalone work zones. We believe the I-64 Exit 118 and US 29/Fontaine Avenue ramp elements would best be constructed as a combined work zone/area.

We anticipate staggering the work on the project elements to minimize the impacts to Charlottesville-area traffic; expedite necessary permits, ROW acquisitions, and utility relocations; and to efficiently order materials, mobilize work forces, and construct the project per the contract and approved plans. One immediate goal is to expedite the design to get a construction crew working on the Exit 118/Fontaine element in spring of 2020. These two project elements do not appear to have third party utility or ROW impacts, and we would press to get the IMR, roadway, rough grading, and sediment control plans submitted and approved quickly so that crews can mobilize and begin work while the remaining plan packages are approved. This will ensure that the work is completed during the summer 2020 construction season, and that the work zone measures are in place prior to the UVA fall semester and football season. The remaining elements have more extensive utility relocations and/or ROW needs and will be under construction in later seasons.

WM with support from CN provides the DBT with the ability to expedite concurrent final design production efforts. WM will provide final design production efforts for the Exit 124 DDI, the VA 20/649-Proffit Road

roundabout, and the Rio Mills Connector on the east side of town. CN will support final design production efforts for the Exit 118/Fontaine Avenue ramp work and the US 250/VA 151 roundabout on the west side of town; the entire DBT team – contractor, design, utility/ROW, and QA/QC – will be involved in internal constructability and value engineering reviews prior to each submittal.

The design team will accelerate the schedule by preparing PFI-level concepts during the RFP stage that will be used to initiate project scoping, utility coordination, and ROW needs analysis soon after project award. We foresee the project scoping meeting to be more of a "pre-PFI" level review and will apply the feedback from the scoping stage to develop the equivalent of a Public Hearing submittal for each element. The ROW and UFI plan submittal will follow soon afterward, once comments are addressed. We will use the design milestone checklists for these reviews to develop each plan set with the intent to wrap up the designs quickly so that the higher-risk, time-intensive ROW acquisition and utility relocation work can get underway as soon as possible.

Our design team will prepare plans to secure conditional approval of line and grade, storm drain and SWM, roadway plans and profiles, TMP, rough grading, and erosion sediment control plans concurrently with the Public Hearing plan submittal so that our construction crews can get underway while the traffic roll plans, landscape architecture, and other "final" submittals are being coordinated, reviewed, and approved. We will identify long-lead items (e.g., traffic items) and ensure that their procurement does not impact the schedule.

Our approach to design quality is focused on producing plans that are compliant with the RFP, constructible, and permittable. Key construction staff will review the design during every stage of development, making constructability reviews an integral part of the design quality process. Experienced and licensed design personnel will perform complete checks of all designs, calculations, plans, etc. Design Quality Assurance will verify that all aspects of the contract and our design quality control plan (DQCP) have been followed. Before any package is released for construction, the applicable Professional Engineer of record will sign, seal, and certify that all technical documents were prepared to conform with the DQCP. The DBT will work directly within the VDOT Projectwise enterprise management system. Our DM and other identified managers will ensure all project documents, CADD files, meeting materials, etc. are up to date on Projectwise.

CCI will assign multiple work crews to cover several elements simultaneously to deliver all the elements before the March 2023 deadline. CCI can self-perform almost all the work activities needed for completing the elements including electrical and final signing/ pavement markings. CCI has 35 contracts ongoing with over 40 available crews which allows us to mobilize and expedite work as needed, mitigating delays due to subcontractor scheduling and resource constraints. This flexibility ensures that we will be able to complete elements on schedule and within budget. Anticipated major work items for the elements of the project are:

111727-I-64 Exit 118 ▸▸ US 29 SB median widening and new spur ramp with signal to US 29 NB to I-64 EB Ramp ▸▸ Adjust 29 NB accel/decel lanes and tapers ▸▸ Update/install US 29 overhead signage ▸▸ Remove old 29 SB to I-64 EB loop ramp	**109397-Rio Mills Road** ▸▸ Secure ROW donation from developer ▸▸ Clearing and rough grading ▸▸ Utility/storm drain facilities installation ▸▸ Construct new roadway and connections with Berkmar Drive and Rio Mills Road
111813-US 29/Fontaine Ave Ramp ▸▸ Clearing and grading for inside ramp widening ▸▸ Storm drain modifications ▸▸ Base paving widening ▸▸ Update/install NB US 29 signage ▸▸ Final surface paving and pavement markings	**111730-US 250/VA 151 Roundabout** ▸▸ Secure ROW, north side priority ▸▸ Utility relocation, drainage/conduit installations ▸▸ Roundabout base paving widening ▸▸ Operate as one lane roundabout, remove signal ▸▸ Construct central island and splitters
111733-VA 20/649 Roundabout ▸▸ Secure ROW from adjacent properties ▸▸ Clearing and rough grading ▸▸ Utility relocation/storm drain-stream cross culvert modifications/lighting installation ▸▸ Base paving widening and realign side roads ▸▸ Construct central island and splitters ▸▸ Remove existing side road pavement	**111814-I-64 Exit 124 DDI** ▸▸ Clearing & grading for ramps/US 250 widening ▸▸ Utility relocation/storm drain modifications ▸▸ I-64 ramps inside and US 250 outside widenings ▸▸ US 250 median work, wedge & level crossover intersections and update/install signage ▸▸ Shift traffic to DDI crossovers and complete islands, surface paving, pavement markings

Appendix 3.2.6
Affiliated/Subsidiary Companies

ATTACHMENT 3.2.6

State Project No. 0250-002-956

Affiliated and Subsidiary Companies of the Offeror

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

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

Relationship with Offeror (Affiliate or Subsidiary)	Full Legal Name	Address
Affiliate	The Curtis Group, Inc.	P.O. Box 769, West Point, VA 23181
Affiliate	Theron Leasing, LLC	P.O. Box 769, West Point VA 23181
Affiliate	AMAC Leasing, LLC	P.O. Box 769, West Point, VA 23181

Appendix 3.2.7
Debarment Forms

ATTACHMENT 3.2.7(a)

CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project No.: 0250-002-956

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	Date	Title
	8.21.18	VICE PRESIDENT

Curtis Contracting Inc
Name of Firm

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0250-002-956

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	8/15/18 Date	Partner Title

Wallace, Montgomery & Associates, LLP
Name of Firm

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT LOWER TIER COVERED TRANSACTIONS

Project No.: 0250-002-956

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	Date	Title
	7/31/2018	President

CES CONSULTING LLC

Name of Firm

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0250-002-956

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.

	July 31, 2018	Principal
Signature	Date	Title

Clark Nexsen
Name of Firm

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT LOWER TIER COVERED TRANSACTIONS

Project No.: 0250-002-956

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	August 1, 2018 Date	Branch Manager/Principal Title

Bowman Consulting Group, Ltd.
Name of Firm

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

Project: A DESIGN-BUILD PROJECT, Albemarle Intersection Bundling, Albemarle County, Virginia UPC (State Project Nos.; Federal Project Nos.) UPC 111814 (0250-002-956, P101, R201, C501; NHPP-002-7(051)); UPC 111727 (0029-002-959, P101, C501; HSIP-5104(269)); UPC 111813 (0029-002-955, P101, R201, C501; NHPP-002-7(050)); UPC 111730 (0250-002-954, P101, R201, C501; HSIP-002-7(049)); UPC 111733 (0020-002-953, P101, R201, C501; STP-5104(267)); UPC 109397 (9999-002-941, P101, R201, C501)

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.

Rynette Wissel — Signature
08/16/2018 — Date
President — Title

EPR, PC
Name of Firm

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0250-002-956

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	8/6/2018 Date	President Title

GET Solutions, Inc.
Name of Firm

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0250-002-956

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	Date	Title
	8/2/2018	President

Acompong Engineering Group LLC
Name of Firm

Appendix 3.2.8
VDOT Prequalification Evidence

COMMONWEALTH OF VIRGINIA

VDOT
Virginia Department of Transportation

CERTIFICATE OF QUALIFICATION

CURTIS CONTRACTING, INC.

Vendor Number: **C333**

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

PREQUALIFIED

Your firm specializes in the noted Classification(s):
GRADING; MAJOR STRUCTURES; ASPHALT CONCRETE PAVING;
MINOR STRUCTURES; H.C.C. PAVEMENT

Issue Date: March 31, 2018

This Rating and Classification will Expire: March 31, 2019

Issued under the authority of:
Don E. Silies, Director of Contracts

Appendix 3.2.9
Evidence of Obtaining Bonding

HRB
HAMPTON ROADS BONDING
A Marsh & McLennan Agency LLC Company

Hampton Roads Bonding
1080 Laskin Road, Suite 204
Virginia Beach, VA 23451
+1 757 491 1100
Fax +1 757 491 3134
www.hrbonding.com

July 26, 2018

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

Re: Curtis Contracting, Inc.
Request for Qualifications
Design-Build Project – Albemarle Intersection Bundling
Contract ID Number: C00111814DB103
Anticipated Contract Value: $22,000,000

To Whom It May Concern:

Hampton Roads Bonding has the privilege of providing surety bonds for Curtis Contracting, Inc. This account is written through Travelers Casualty and Surety Company of America (Travelers), a Connecticut corporation. Travelers has an AM Best Rating of A++ with a financial strength category of XV, is licensed to transact business in Virginia and is listed on the United States Department of Treasury List of Acceptable Surety Companies.

Curtis Contracting, Inc. has an excellent reputation for providing a quality project on a timely basis. At no time (past or present) have we encountered any complaints from owners or subcontractors with whom they have worked. They have a bonding program in place for single jobs in excess of $75,000,000 with a $150,000,000 aggregate program. It should be understood if this fine customer needed bonds that exceed these limits the bonding company would certainly consider such a request based on their past experience.

Accordingly, Curtis Contracting, Inc. is capable of obtaining a 100% Performance Bond and a 100% Labor and Materials Payment Bond in the amount of the anticipated cost of construction, and said bonds will cover the Project and any warranty periods as provided for in the Contract Documents on behalf of the Contractor, in the event that such firm be the successful bidder and enter into a contract for this Project.

If you have any questions or need further information concerning this contractor, please contact me at 757-491-1100.

Regards,

Daniel J. Grygo

Appendix 3.2.10
SCC and DPOR Registration Documention

ATTACHMENT 3.2.10

State Project No. 0250-002-956

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**
Curtis Contracting, Inc.	02733335	Corporation	Active	P.O. Box 769 West Point, VA 23181	Contractor Class A	2701031525	03-31-2020
Wallace Montgomery & Associates, LLP	K000734-6	Limited Liability Partnership	Active	10150 York Rd, Ste 200 Hunt Valley, MD 21030	Business Entity Branch ENG	0411001087	02-29-2020
				10150 York Rd, Ste 200 Hunt Valley, MD 21030	Business Entity ENG	0407005814	12-31-2019
CES Consulting, LLC	S341600-7	Limited Liability Company	Active	317 Office Square Ln, Ste 101A Virginia Beach, VA 23462	Business Entity Branch ENG	0411001331	02-29-2020
Clark Nexsen, Inc.	01901750	Corporation	Active	4525 Main St, Ste 1400 Virginia Beach, VA 23462	Business Entity ENG, LA, CID, ARC	0407006529	12-31-2019
				8000 Towers Crescent Dr, Ste 1150, Vienna, VA 22182	Business Entity Branch ENG	0411001121	02-29-2020
				1111 E. Main St, Ste 1905 Richmond, VA 23219	Business Entity Branch ENG	0411001119	02-29-2020
Bowman Consulting Group, Ltd.	04481982	Corporation	Active	14020 Thunderbolt Pl, Ste 300 Chantilly, VA 20151	Business Entity ENG, LA, LS	0407003896	12-31-2019
				650 A Nelms Circle Fredericksburg, VA 22406	Business Entity Branch LS, ENG	0411000421	02-29-2020
				3951 Westerer Pkwy, Ste 150 Richmond, VA 23233	Business Entity Branch ENG, LS	0411000610	02-29-2020
EPR, P.C.	07344856	Corporation	Active	902 E. Jefferson St, Unit 101 Charlottesville, VA 22902	Business Entity ENG	0405001919	12-31-2019
Geotechnical Environmental and Testing Solutions, Inc.	05418470	Corporation	Active	204-B Grayson Road Virginia Beach, VA 23462	Business Entity ENG	0407004018	12-31-2019
Accompong Engineering Group, LLC	S2835215	Limited Liability Company	Active	9510 Iron Bridge Rd, Ste 200 Chesterfield, VA 23832	Business Entity ENG	0407005442	12-31-2019

ATTACHMENT 3.2.10

State Project No. 0250-002-956

SCC and DPOR Information

DPOR INFORMATION FOR INDIVIDUALS (RFQ Sections 3.2.10.3 and 3.2.10.4)						
Business Name	**Individual's Name**	**Office Location Where Professional Services will be Provided (City/State)**	**Individual's DPOR Address**	**DPOR Type**	**DPOR Registration Number**	**DPOR Expiration Date**
CES Consulting, LLC	Avtar Singh	Virginia Beach, VA	6773 Leopolds Trail Haymarket, VA 20169	Professional Engineer	0402035169	01-31-2019
Wallace, Montgomery & Associates, LLP	Eric P. Sender	Vienna, VA	10150 York Road, Suite 200 Hunt Valley, MD 21030	Professional Engineer	0402048790	04-30-2019
Curtis Contracting, Inc.	William Evans Richards	West Point, VA	212 Overlook Road Richmond, VA 23227	Professional Engineer	0402027950	01-31-2020

Alert to business entities regarding mailings from VIRGINIA COUNCIL FOR CORPORATIONS or U.S. BUSINESS SERVICES is available from the Bulletin Archive the Clerk's Office website.

08/17/18

CISM0180 CORPORATE DATA INQUIRY 09:59:44

CORP ID: 0273333 - 5 STATUS: 00 ACTIVE STATUS DATE: 07/15/85

CORP NAME: CURTIS CONTRACTING, INC.

DATE OF CERTIFICATE: 07/15/1985 PERIOD OF DURATION: INDUSTRY CODE: 00

STATE OF INCORPORATION: VA VIRGINIA STOCK INDICATOR: S STOCK

MERGER IND: CONVERSION/DOMESTICATION IND:

GOOD STANDING IND: Y MONITOR INDICATOR:

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

R/A NAME: REES BROOME PC

STREET: 1900 GALLOWS ROAD STE 700 AR RTN MAIL:

CITY: TYSONS CORNER STATE : VA ZIP: 22182-0000

R/A STATUS: 5 B.E. AUTH IN VI EFF. DATE: 09/29/17 LOC : 129

ACCEPTED AR#: 218 09 2607 DATE: 06/06/18 FAIRFAX COUNTY

CURRENT AR#: 218 09 2607 DATE: 06/06/18 STATUS: A ASSESSMENT INDICATOR: 0

YEAR	FEES	PENALTY	INTEREST	TAXES	BALANCE	TOTAL SHARES
18	100.00					1,000

(Screen Id:/Corp_Data_Inquiry)

COMMONWEALTH of VIRGINIA

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

EXPIRES ON
03-31-2020

NUMBER
2701031525

BOARD FOR CONTRACTORS
CLASS A CONTRACTOR
CLASSIFICATIONS ASB CBC H/H LSC RBC

CURTIS CONTRACTING INC
PO BOX 769
WEST POINT, VA 23181

DPOR

Jay W. DeBoer, Director

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

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)

Commonwealth of Virginia

STATE CORPORATION COMMISSION

Richmond, October 13, 2010

This is to Certify that the statement of registration of

Wallace, Montgomery & Associates, LLP

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

State Corporation Commission
Attest:

Joel H. Peck
Clerk of the Commission

CIS0436

COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

Office of the Clerk

October 13, 2010

NATIONAL REGISTERED AGENTS INC
201 N UNION ST STE 140
ALEXANDRIA, VA 22314

RECEIPT

RE: Wallace, Montgomery & Associates, LLP

ID: K000734 - 6

DCN: 10-10-08-0501

Dear Customer:

This is your receipt for $100.00 to cover the fees for filing a statement of registration as a registered limited liability partnership with this office.

The effective date of the statement is October 13, 2010.

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

Sincerely,

Joel H. Peck
Clerk of the Commission

GPACCEPT
CIS0436

COMMONWEALTH of VIRGINIA

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

EXPIRES ON
02-29-2020

NUMBER
0411001087

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

PROFESSIONS: ENG

WALLACE, MONTGOMERY & ASSOCIATES, LLP
10150 YORK RD STE 200
HUNT VALLEY, MD 21030

Jay W. DeBoer, Director

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

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)

(DETACH HERE)

DPOR COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation

BOARD FOR APELSCIDLA
BUSINESS ENTITY BRANCH OFFICE REGISTRATION
NUMBER: 0411001087 EXPIRES: 02-29-2020
PROFESSIONS: ENG
WALLACE, MONTGOMERY & ASSOCIATES, LLP
10150 YORK RD STE 200
HUNT VALLEY, MD 21030

(FOLD)

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

DPOR-PC (02/2017)

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
0407005814

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

PROFESSIONS: ENG

WALLACE, MONTGOMERY & ASSOCIATES, LLP
10150 YORK RD STE 200
HUNT VALLEY, MD 21030

Jay W. DeBoer, Director

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

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)

(DETACH HERE)

COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation

BOARD FOR APELSCIDLA
BUSINESS ENTITY REGISTRATION
NUMBER: 0407005814 EXPIRES: 12-31-2019
PROFESSIONS: ENG
WALLACE, MONTGOMERY & ASSOCIATES, LLP
10150 YORK RD STE 200
HUNT VALLEY, MD 21030

(FOLD)

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

DPOR-PC (02/2017)

Alert to business entities regarding mailings from VIRGINIA COUNCIL FOR CORPORATIONS or U.S. BUSINESS SERVICES is available from the Bulletin Archive the Clerk's Office website.

08/17/18

LLCM3220 LLC DATA INQUIRY **10:06:29**

LLC ID: S341600 - 7 STATUS: 00 ACTIVE STATUS DATE: 10/14/10

LLC NAME: **CES Consulting, LLC**

DATE OF FILING: 10/14/2010 PERIOD OF DURATION: INDUSTRY CODE: 70

STATE OF FILING: VA VIRGINIA MERGER INDICATOR:

CONVERSION/DOMESTICATION INDICATOR:

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

STREET: 23475 ROCK HAVEN WAY

SUITE 255

CITY: DULLES STATE: VA ZIP: 20166-0000

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

R/A NAME: AVTAR SINGH

STREET: 6773 LEOPOLDS TRAIL

RTN MAIL:

CITY: HAYMARKET STATE: VA ZIP: 20169-0000

R/A STATUS: 1 MEMBER/MANAGER EFF DATE: 05/18/16 LOC: 176 PRINCE WILLIAM

YEAR	FEES	PENALTY	INTEREST	BALANCE
18	50.00			**50.00**

(Screen Id:/LLC_Data_Inquiry)

COMMONWEALTH of VIRGINIA

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

EXPIRES ON
02-29-2020

NUMBER
0411001331

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

PROFESSIONS: ENG

CES CONSULTING LLC
317 OFFICE SQUARE LN STE 101A
VIRGINIA BEACH, VA 23462

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

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)

(DETACH HERE)

COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation

BOARD FOR APELSCIDLA
BUSINESS ENTITY BRANCH OFFICE REGISTRATION
NUMBER: 0411001331 EXPIRES: 02-29-2020
PROFESSIONS: ENG
CES CONSULTING LLC
317 OFFICE SQUARE LN STE 101A
VIRGINIA BEACH, VA 23462

(FOLD)

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

DPOR-PC (02/2017)

Alert to business entities regarding mailings from VIRGINIA COUNCIL FOR CORPORATIONS or U.S. BUSINESS SERVICES is available from the Bulletin Archive the Clerk's Office website.

08/17/18

CISM0180 CORPORATE DATA INQUIRY 10:02:50

CORP ID: 0190175 - 0 STATUS: 00 ACTIVE STATUS DATE: 05/16/89

CORP NAME: Clark Nexsen, Inc.

DATE OF CERTIFICATE: 11/27/1978 PERIOD OF DURATION: INDUSTRY CODE: 00

STATE OF INCORPORATION: VA VIRGINIA STOCK INDICATOR: S STOCK

MERGER IND: S SURVIVOR CONVERSION/DOMESTICATION IND:

GOOD STANDING IND: Y MONITOR INDICATOR:

CHARTER FEE: 2000.00 MON NO: MON STATUS: MONITOR DTE:

R/A NAME: TERESA HALL

STREET: 4525 MAIN STREET, STE. 1400 AR RTN MAIL:

CITY: VIRGINIA BEACH STATE : VA ZIP: 23462-0000

R/A STATUS: 2 OFFICER EFF. DATE: 04/17/18 LOC : 228

ACCEPTED AR#: 217 14 7358 DATE: 09/25/17 VIRGINIA BEACH

CURRENT AR#: 217 14 7358 DATE: 09/25/17 STATUS: A ASSESSMENT INDICATOR: 0

YEAR	FEES	PENALTY	INTEREST	TAXES	BALANCE	TOTAL SHARES
17	670.00					1,000,000

(Screen Id:/Corp_Data_Inquiry)

COMMONWEALTH of VIRGINIA

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

EXPIRES ON
12-31-2019

NUMBER
0407006529

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

PROFESSIONS: ENG, LA, CID, ARC

CLARK NEXSEN INC
4525 MAIN ST STE 1400
VIRGINIA BEACH, VA 23462

DPOR

Jay W. DeBoer, Director

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

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)

(DETACH HERE)

DPOR COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation

BOARD FOR APELSCIDLA
BUSINESS ENTITY REGISTRATION
NUMBER: 0407006529 EXPIRES: 12-31-2019
PROFESSIONS: ENG, LA, CID, ARC
CLARK NEXSEN INC
4525 MAIN ST STE 1400
VIRGINIA BEACH, VA 23462

(FOLD)

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

DPOR-PC (02/2017)

COMMONWEALTH of VIRGINIA

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

EXPIRES ON
02-29-2020

NUMBER
0411001121

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

PROFESSIONS: ENG

CLARK NEXSEN INC
TOWERS CRESCENT
8000 TOWERS CRESCENT DR STE 1150
VIENNA, VA 22182

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

Jay W. DeBoer Director

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)

(DETACH HERE)

DPOR COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation

BOARD FOR APELSCIDLA
BUSINESS ENTITY BRANCH OFFICE REGISTRATION
NUMBER: 0411001121 EXPIRES: 02-29-2020
PROFESSIONS: ENG
CLARK NEXSEN INC
TOWERS CRESCENT
8000 TOWERS CRESCENT DR STE 1150
VIENNA, VA 22182

(FOLD)

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

DPOR-PC (02/2017)

COMMONWEALTH of VIRGINIA

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

EXPIRES ON
02-29-2020

NUMBER
0411001119

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

PROFESSIONS: ENG

CLARK NEXSEN INC
1111 E MAIN ST STE 1905
RICHMOND, VA 23219

DPOR

Jay W. DeBoer, Director

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

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)

(DETACH HERE)

DPOR COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation

BOARD FOR APELSCIDLA
BUSINESS ENTITY BRANCH OFFICE REGISTRATION
NUMBER: 0411001119 EXPIRES: 02-29-2020
PROFESSIONS: ENG
CLARK NEXSEN INC
1111 E MAIN ST STE 1905
RICHMOND, VA 23219

(FOLD)

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

DPOR-PC (02/2017)

Alert to business entities regarding mailings from VIRGINIA COUNCIL FOR CORPORATIONS or U.S. BUSINESS SERVICES is available from the Bulletin Archive the Clerk's Office website.

08/17/18

CISM0180 CORPORATE DATA INQUIRY 10:10:02

CORP ID: 0448198 - 2 STATUS: 00 ACTIVE STATUS DATE: 08/04/16
CORP NAME: BOWMAN CONSULTING GROUP, LTD.

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

STREET: 100 SHOCKOE SLIP AR RTN MAIL:
2ND FLOOR
CITY: RICHMOND STATE : VA ZIP: 23219-0000
R/A STATUS: 5 B.E. AUTH IN VI EFF. DATE: 01/01/18 LOC : 216
ACCEPTED AR#: 218 52 4786 DATE: 06/11/18 RICHMOND CITY
CURRENT AR#: 218 52 4786 DATE: 06/11/18 STATUS: A ASSESSMENT INDICATOR: 0

YEAR	FEES	PENALTY	INTEREST	TAXES	BALANCE	TOTAL SHARES
18	1,700.00					360,000

(Screen Id:/Corp_Data_Inquiry)

COMMONWEALTH of VIRGINIA

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

EXPIRES ON
12-31-2019

NUMBER
0407003896

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

PROFESSIONS: ENG, LA, LS

BOWMAN CONSULTING GROUP LTD
14020 THUNDERBOLT PLACE
SUITE 300
CHANTILLY, VA 20151

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

Jay W. DeBoer, Director

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)

(DETACH HERE)

COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation

BOARD FOR APELSCIDLA
BUSINESS ENTITY REGISTRATION
NUMBER: 0407003896 EXPIRES: 12-31-2019
PROFESSIONS: ENG, LA, LS
BOWMAN CONSULTING GROUP LTD
14020 THUNDERBOLT PLACE
SUITE 300
CHANTILLY, VA 20151

(FOLD)

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

DPOR-PC (02/2017)

COMMONWEALTH of VIRGINIA

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

EXPIRES ON
02-29-2020

NUMBER
0411000421

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

PROFESSIONS: LS, ENG

BOWMAN CONSULTING GROUP LTD
650A NELMS CIRCLE
FREDERICKSBURG, VA 22406

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

Jay W. DeBoer, Director

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)

(DETACH HERE)

COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation

BOARD FOR APELSCIDLA
BUSINESS ENTITY BRANCH OFFICE REGISTRATION
NUMBER: 0411000421 EXPIRES: 02-29-2020
PROFESSIONS: LS, ENG
BOWMAN CONSULTING GROUP LTD
650A NELMS CIRCLE
FREDERICKSBURG, VA 22406

(FOLD)

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

DPOR-PC (02/2017)

COMMONWEALTH of VIRGINIA

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

EXPIRES ON
02-29-2020

NUMBER
0411000610

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

PROFESSIONS: ENG, LS

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

Jay W. DeBoer, Director

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

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)

(DETACH HERE)

COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation

BOARD FOR APELSCIDLA
BUSINESS ENTITY BRANCH OFFICE REGISTRATION
NUMBER: 0411000610 EXPIRES: 02-29-2020
PROFESSIONS: ENG, LS
BOWMAN CONSULTING GROUP LTD
3951 WESTERRE PKWY
SUITE 150
RICHMOND, VA 23233

(FOLD)

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

DPOR-PC (02/2017)

Alert to business entities regarding mailings from VIRGINIA COUNCIL FOR CORPORATIONS or U.S. BUSINESS SERVICES is available from the Bulletin Archive the Clerk's Office website.

08/17/18

CISM0180 CORPORATE DATA INQUIRY 10:12:13

CORP ID: 0734485 - 6 STATUS: 00 ACTIVE STATUS DATE: 03/08/11

CORP NAME: EPR, P.C.

DATE OF CERTIFICATE: 03/08/2011 PERIOD OF DURATION: INDUSTRY CODE: 70

STATE OF INCORPORATION: VA VIRGINIA STOCK INDICATOR: S STOCK

MERGER IND: CONVERSION/DOMESTICATION IND:

GOOD STANDING IND: Y MONITOR INDICATOR:

CHARTER FEE: 50.00 MON NO: MON STATUS: MONITOR DTE:

R/A NAME: LYNETTE WUENSCH

STREET: 3205 WATTS STATION DR AR RTN MAIL:

CITY: CHARLOTTESVILLE STATE : VA ZIP: 22911-0000

R/A STATUS: 1 DIRECTOR EFF. DATE: 03/08/11 LOC : 101

ACCEPTED AR#: 218 50 4082 DATE: 01/24/18 ALBEMARLE COUNT

CURRENT AR#: 218 50 4082 DATE: 01/24/18 STATUS: A ASSESSMENT INDICATOR: 0

YEAR	FEES	PENALTY	INTEREST	TAXES	BALANCE	TOTAL SHARES
18	100.00					5,000

(Screen Id:/Corp_Data_Inquiry)

COMMONWEALTH of VIRGINIA

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

EXPIRES ON
12-31-2019

NUMBER
0405001919

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

PROFESSIONS: ENG

EPR, P.C.
3205 WATTS STATION DR
CHARLOTTESVILLE, VA 22911

DPOR

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

Jay W. DeBoer, Director

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (05/2015)

Alert to business entities regarding mailings from VIRGINIA COUNCIL FOR CORPORATIONS or U.S. BUSINESS SERVICES is available from the Bulletin Archive the Clerk's Office website.

08/17/18

CISM0180 CORPORATE DATA INQUIRY 10:04:21

CORP ID: 0541847 - 0 STATUS: 00 ACTIVE STATUS DATE: 08/04/04

CORP NAME: Geotechnical Environmental and Testing Solutions, Inc.

DATE OF CERTIFICATE: 06/16/2000 PERIOD OF DURATION: INDUSTRY CODE: 00

STATE OF INCORPORATION: VA VIRGINIA STOCK INDICATOR: S STOCK

MERGER IND: CONVERSION/DOMESTICATION IND:

GOOD STANDING IND: Y MONITOR INDICATOR:

CHARTER FEE: 400.00 MON NO: MON STATUS: MONITOR DTE:

R/A NAME: TERENCE MURPHY

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

CITY: NORFOLK STATE : VA ZIP: 23510-1609

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

ACCEPTED AR#: 218 10 3050 DATE: 06/29/18 NORFOLK CITY

CURRENT AR#: 218 10 3050 DATE: 06/29/18 STATUS: A ASSESSMENT INDICATOR: 0

YEAR	FEES	PENALTY	INTEREST	TAXES	BALANCE	TOTAL SHARES
18	1,270.00					200,000

(Screen Id:/Corp_Data_Inquiry)

COMMONWEALTH of VIRGINIA

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

EXPIRES ON
12-31-2019

NUMBER
0407004018

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

PROFESSIONS: ENG

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

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

Jay W. DeBoer, Director

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)

(DETACH HERE)

COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation

BOARD FOR APELSCIDLA
BUSINESS ENTITY REGISTRATION
NUMBER: 0407004018 EXPIRES: 12-31-2019
PROFESSIONS: ENG
GEOTECHNICAL ENVIRONMENTAL & TESTING SOLUTIONS INC
204-B GRAYSON ROAD
VIRGINIA BEACH, VA 23462

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

DPOR-PC (02/2017)

Alert to business entities regarding mailings from VIRGINIA COUNCIL FOR CORPORATIONS or U.S. BUSINESS SERVICES is available from the Bulletin Archive the Clerk's Office website.

08/17/18

LLCM3220 LLC DATA INQUIRY **10:12:56**

LLC ID: S283521 - 5 STATUS: 00 ACTIVE STATUS DATE: 02/17/09

LLC NAME: **Accompong Engineering Group, LLC**

DATE OF FILING: 02/17/2009 PERIOD OF DURATION: INDUSTRY CODE: 00

STATE OF FILING: VA VIRGINIA MERGER INDICATOR:

CONVERSION/DOMESTICATION INDICATOR:

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

STREET: 8425 LYLWOOD CT

CITY: CHESTERFIELD STATE: VA ZIP: 23838-0000

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

R/A NAME: CONRAD A SCOTT

STREET: 9510 IRONBRIDGE ROAD

SUITE 200 RTN MAIL:

CITY: CHESTERFIELD STATE: VA ZIP: 23832-0000

R/A STATUS: 1 MEMBER/MANAGER EFF DATE: 12/27/11 LOC: 120 CHESTERFIELD CO

YEAR	FEES	PENALTY	INTEREST	BALANCE
18	50.00			

(Screen Id:/LLC_Data_Inquiry)

COMMONWEALTH of VIRGINIA

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

EXPIRES ON
12-31-2019

NUMBER
0407005442

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

PROFESSIONS: ENG

ACCOMPONG ENGINEERING GROUP, LLC
9510 IRON BRIDGE RD
SUITE 200
CHESTERFIELD, VA 23832

DPOR

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

Jay W. DeBoer, Director

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (05/2015)

(DETACH HERE)

DPOR COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation

BOARD FOR APELSCIDLA
BUSINESS ENTITY REGISTRATION
NUMBER: 0407005442 EXPIRES: 12-31-2019
PROFESSIONS: ENG
ACCOMPONG ENGINEERING GROUP, LLC
9510 IRON BRIDGE RD
SUITE 200
CHESTERFIELD, VA 23832

(FOLD)

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

DPOR-PC (05/2015)

COMMONWEALTH of VIRGINIA

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

EXPIRES ON
01-31-2019

NUMBER
0402035169

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

AVTAR SINGH
6773 LEOPOLDS TRAIL
HAYMARKET, VA 20169

DPOR

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

Jay W. DeBoer, Director

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (05/2015)

(DETACH HERE)

DPOR COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation

BOARD FOR APELSCIDLA
PROFESSIONAL ENGINEER LICENSE
NUMBER: 0402035169 EXPIRES: 01-31-2019

AVTAR SINGH
6773 LEOPOLDS TRAIL
HAYMARKET, VA 20169

(FOLD)

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

DPOR-PC (05/2015)

COMMONWEALTH of VIRGINIA

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

EXPIRES ON
04-30-2019

NUMBER
0402048790

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

ERIC P SENDER
WALLACE, MONTGOMERY & ASSOCIATES, LLP
10150 YORK ROAD
STE 200
HUNT VALLEY, MD 21030

Jay W. DeBoer, Director

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

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)
(DETACH HERE)

COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation

BOARD FOR APELSCIDLA
PROFESSIONAL ENGINEER LICENSE
NUMBER: 0402048790 EXPIRES: 04-30-2019

ERIC P SENDER
WALLACE, MONTGOMERY & ASSOCIATES, LLP
10150 YORK ROAD
STE 200
HUNT VALLEY, MD 21030

(FOLD)

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

DPOR-PC (02/2017)

COMMONWEALTH of VIRGINIA

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

EXPIRES ON
01-31-2020

NUMBER
0402027950

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

WILLIAM EVANS RICHARDS
212 OVERLOOK ROAD
RICHMOND, VA 23227

DPOR

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

Jay W. DeBoer, Director

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (02/2017)

Appendix 3.3.1
Key Personnel Resumes

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title: **Stephen L. Ordung – Vice President Operations**

b. Project Assignment: **Design Build Project Manager**

c. Name of all Firms with which you are employed at the time of submitting SOQ. In addition, please denote the type of employment (Full time/Part Time): **Curtis Contracting Inc. – Full Time**

d. Employment History: With this Firm **12** Years With Other Firms **16** 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):

Curtis Contracting, Inc., Design-Build Project Manager (DBPM) / Contracts Manager, 2006 – Present

Steve is responsible for providing oversight and monitoring all stages of the design-build project life cycle; coordinating with internal and external stakeholders; ensuring that the project aligns with the project schedule; working closely with owner representatives, designers, construction staff, and quality teams.

- I-264 Roadway Rehabilitation Design-Build ($73M), 11/2013 to 11/2015 – DBPM
- MLK Blvd Extension Design-Build P3 ($47M), 8/2013 to 12/2016 – Senior Project Manager
- I-295/Meadowville Road Interchange Design-Build ($11.7M), 9/2010 to 11/2011 – DBPM
- Warhill Infrastructure and Roadways Design-Build ($37.4), 4/2006 to 8/2008 – DBPM

Archer Western Contractors, Program Manager, 2003 – 2006

Steve oversaw and monitored all stages of the design-build and bid-build projects. Steve was responsible for projects in the Mid-Atlantic region, and ensured delivery of all projects in accordance with the project schedule, contract documents, and the safety and quality compliance and initiatives. He worked closely with owner representatives, designers, project management, and construction staff.

- I-95/395/495 Springfield Interchange Phase 6 & 7 ($104M) – Construction Manager
- I-64/Staples Mill Interchange CSX ACCA Yard RR Bridge Widening ($24M) – Construction Manager

Archer Western Contractors, Senior Project Manager, 1998 – 2003

- I-64 Widening/Jefferson Avenue Interchange ($39M) – Construction Manager
- RDU Airport Infrastructure ($32M) – Construction Manager

Steve has over 26 years of experience on major infrastructure projects including design-builds; highway and bridge; major airport facilities; athletic facilities; water/wastewater treatment plants; and other site development projects. His clients have included FHWA; VDOT; NCDOT; MDOT SHA; USACE; US Navy; AAFES; and GSA.

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:

Wentworth Institute of Technology, Boston, Massachusetts / BS / 1990 / Construction Management
Worcester Industrial Technical Institute, Worcester, Massachusetts / AS / 1988 / Civil Engineering
US Army Corps of Engineers – CQM Certification CENAO-08-0387

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

Virginia DCR Responsible Land Disturber Certification / #32306 (Exp. 7/13/2019)

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.)

1) I-264 Roadway Rehabilitation Design-Build Project – Virginia Beach, VA
Curtis Contracting, Inc., Design-Build Project Manager (Nov 2013 – Nov 2015)
Owner: VDOT Hampton Roads District; Contact: Mr. James Utterback, 757-802-0005

Responsibilities and Job Duties: Steve managed the overall design-build (DB) process including public relations; design; permitting; utility coordination; QA/QC; environmental protection; safety; schedule; and construction for this 12-mile segment, $73M project. Over 185,000 vehicles travel through this section of I-264 every weekday. The project included widening the roadway; rehabilitating the pavement; adding drainage, barriers, and guardrail; as well as upgrading the signing to meet current safety standards. He implemented significant traffic control to install 190,000 tons of asphalt paving; 130,000 SY of full depth concrete; four miles of roadway widening; 70,000 LF of median and shoulder

barrier; jack & boring of drainage culverts; drainage mods; signage; and 1,000,000 LF of pavement markings. As the DBT's main point of contact, he was responsible for communicating and coordinating with VDOT, the City of Virginia Beach, permitting agencies, and stakeholders. **Relevancy**: This project required an extensive TMP that supported construction activities surrounding the City of Virginia Beach. Steve coordinated directly with concert venues, beach tourism agencies, businesses, and schools. He communicated with emergency responders and law enforcement through ever-changing construction zones. VDOT used the DBT's public outreach plan for this project for future DB and major project undertakings within the Hampton Roads District. **Exceptional Performance**: Within two months, Steve expedited the schedule to advance design, permitting, and start construction work. Steve used the DB process' unique flexibility to adjust sequencing and the schedule; this adjustment overcame a potential seven-month delay that was caused by unforeseen conditions and $12M in additional work. Steve's focus on safety and accident prevention resulted in over 200,000 man hours without a single lost time injury for the project. Steve was instrumental in salvaging existing concrete material during pavement removal and recycled the material. He developed the original contract proposal, CPM, and QA/QC plan; maintained project controls; and completed all contract negotiations. Through VDOT, Steve partnered with the state police to develop a plan for reducing speeds (speed enforcement) to enhance safety during construction.

2) I-295/Meadowville Road Interchange Design-Build Project – Chesterfield County, VA
Curtis Contracting, Inc., Design Build Project Manager (Sept 2010 – Nov 2011)
Owner: VDOT Richmond District; Contact: Mr. Shane Mann, 804-524-6091

Responsibilities and Job Duties: Steve was responsible for managing the overall DB process, including public relations; design; permitting; utility coordination; QA/QC; environmental protection; safety; schedule; and construction for this $11.7M project to widen I-295, Meadowville Road and on ramps and off ramps for Phase I of the I-295/Meadowville Road interchange development. The project details included signalizing two interchanges; signage, guardrail, asphalt pavement; concrete pavement; drainage; relocating utilities; striping, clearing and mass grading. As the DBT's main point of contact, he communicated and coordinated with VDOT, Chesterfield County, permitting agencies, and stakeholders. **Relevancy**: This project included a substantial change in traffic patterns and motorist habits since it created two new interchanges and four additional ramps that were directly tied to an interstate and secondary roadway. This project required planning and implementing complex traffic control to install new signage and signalization while maintaining existing traffic. The project also required temporary signage to condition traffic to the new patterns. **Exceptional Performance**: This was a high-profile project that hinged on Amazon opening a new distribution facility in the area. Steve expedited the schedule to advance design, permitting, and construction work within a 14-month period. He used the DB process' unique flexibility to steer the phased design submissions to begin work within two months of project award. He obtained all approvals to complete work on time and within budget. Steve's focus on safety and accident prevention resulted in over 85,000 man hours without a single recordable injury for the project. To expedite the schedule, Steve guided the decision to salvage the existing concrete material within the I-295 pavement shoulders and recycle it as ground stabilization base material to construct new on/off ramp fills. He developed the original contract proposal, CPM, and QA/QC plan; maintained all project controls; and completed all contract negotiations. The DBT coordinated with the local fire station to ensure that emergency access vehicles could navigate through the bridge lane closure. CCI suggested and received VDOT's approval to make design changes on the roadway section; these changes applied full-depth asphalt that accelerated construction and reduced the lane closure time. This project was presented at the ***2011 Governor's Transportation Conference*** and won the ***2013 DBIA National Conference Merit Award***.

3) I-264/MLK Extension Interchange P3 Project – City of Portsmouth, VA
Curtis Contracting, Inc., Senior Project Manager (Aug 2013 – Dec 2016)
Owner: SKW Constructors, LLC; Contact: Mr. Wade Watson, 757-673-9487

Responsibilities and Job Duties: Steve managed the overall project that included permitting; utility coordination; QC; environmental protection; safety; schedule; and construction for this $47M project. The project involved constructing a massive new interchange tying together I-264, Route 58 MLK Extension, and Route 17 Fredrick Blvd that included two new bridges, widened two existing bridges, and MSE walls. Project elements included EPS; signals; lighting; signage; guardrail; asphalt pavement; drainage; utility relocation; striping; clearing; mass grading; and MOT. Steve communicated and coordinated with SKW, the design engineer, QAM, VDOT, City of Portsmouth, permitting agencies, and stakeholders. These major items of work include 200,000 CY of mass excavation; 40,000 CY of borrow excavation; 85,000 tons of asphalt; 20,000 tons of aggregate base material; 27,000 CY of EPS/Geo-foam; 25,000 CY of lightweight fill; 46,000 SF of MSE wall; and 4,800 LF of barrier wall; The project removed/replaced a pedestrian bridge with approaches. **Relevancy**: This project modified roadway approaches at multiple signalized intersections and constructed new ramps and loops on major interstates. The project involved multiple phases of construction to change traffic patterns while maintaining through-traffic. The area was densely populated, so planning/construction phases had to accommodate local residences, businesses, historical cemetery, and environmental wetlands. **Exceptional Performance**: Steve's focus on safety enabled us and our subcontractors to reach substantial completion a month ahead of schedule. The DBT completed over 380,000 man hours without a single recordable injury. Steve led schedule recovery efforts when a major subcontractor defaulted and another one was behind schedule. Steve evaluated the remaining scope-of-work and developed a more efficient construction approach to foundation construction. He mobilized additional work crews to mitigate overall schedule impacts. This project received the ***ENR 2017 Project of the Year Award***.

* 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 and for the QAM, provide a current list of assignments, role, and the anticipated duration of each assignment. **Not applicable for this position.**

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title: **Avtar Singh, PE, DBIA, CCM, PMP – President**

b. Project Assignment: **Quality Assurance Manager (QAM)**

c. Name of all Firms with which you are employed at the time of submitting SOQ. In addition, please denote the type of employment (Full time/Part Time): **CES Consulting, LLC – Full Time**

d. Employment History: With this Firm **10.5** Years With Other Firms **16** 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):

CES Consulting, LLC, Consultant Project Quality Manager, 2011 – Present

Avtar oversees quality management for bridge and highway projects per VDOT / FHWA guidelines. He ensures that work conforms with contract specifications; reviews baseline schedules; works with the designer of record and reviews/negotiates work orders; and assists design engineers with expediting field changes. Avtar coordinates traffic management with the Traffic Operations Center (TOC); he also coordinates with the managers/owners of adjacent projects to minimize disruptions. He has managed a QA staff of up to two construction managers and 40 inspectors as a part of district-wide CEI program; he is also responsible for quality inspection documentation, correct payments, and handling all stakeholder concerns. He is thoroughly familiar with the VDOT Design-Build (DB) QA/QC testing requirements and has worked on multiple DB projects in IA/QA/QC roles.

- Route 29 Solutions Design-Build Project ($120M) – Quality Assurance Manager
- Route 772 Bridge over Dulles Greenway Design-Build Project ($71M) – Quality Assurance Manager
- Warrenton Southern Interchange Design-Build Project ($19.5M) – Quality Assurance Manager
- I-66/Route 29/Linton Hall Interchange – VDOT Area Construction Engineer

Virginia Department of Transportation, Area Construction Engineer (ACE), 2005 – 2011

Avtar served as the Area Construction Engineer (ACE) for VDOT in the Northern Virginia District. As the ACE, he was the Responsible Charge Engineer (RCE) for 28 road and bridge construction projects with a cumulative construction value of over $230M. He managed a quality assurance staff of two construction managers and more than 35 inspectors on up to eight concurrent projects. In addition to QA management, he was responsible for providing construction management expertise; providing schedule analysis and claims reviews; providing technical expertise for field and design issues on ongoing projects, as well as upcoming planned projects. He was also responsible for public outreach through seminars, as well as speaking engagements with the public and various political representatives. He ensured that the project team followed all VDOT project startup, execution, and closeout processes, as well as all VDOT and FHWA standards.

NXL Construction Services, Project Construction Quality Engineer, 2004 – 2005

Avtar worked exclusively to manage QA for VDOT bridge and highway projects throughout the Commonwealth, as assigned. He provided day-to-day quality management/inspection of bridge and roadway projects; he also documented work and final project closeouts.

NXL Construction Services, Project Engineer, 1998 – 2004

Avtar provided QA inspection for VDOT road and bridge projects throughout the Commonwealth. He was responsible for project documentation, field inspections, and materials testing; he also resolved issues in the field.

Avtar has over 24 years of progressive responsibility and construction management experience in major bridge and interstate heavy civil engineering projects throughout the Commonwealth of Virginia. He has a thorough knowledge of VDOT and FHWA standards and processes.

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:
George Washington University, Washington, DC / Certificate in Management / 2009 / Project Management
Queens University, Canada / MS / 1994 / Structural Engineering
Queens University, Canada / BS / 1992 / Civil Engineering

f. Active Registration: Year First Registered/ Discipline/VA Registration #:
2001 / Civil Engineering / Virginia #0402035169
2011/CCM/A2127
2014/DBIA Certified Design-Build Professional

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.)

1) Route 29 Solutions Design-Build – Charlottesville, VA
CES Consulting, Inc., Quality Assurance Manager (2015 – 2017)
Owner: VDOT; Contact: Todd Lemasters (VDOT Consultant IA/IV CM), 276-608-4260

Responsibilities and Job Duties: Avtar managed the QA effort, which included managing the QA inspection team for this bundled design-build contract that included the Berkmar Drive Extension, Rio Road Intersection, and Route 29 widening project. The projects included phased construction operations on all three projects; constructing two roundabouts on the Berkmar project; adding roadway widening/turn lanes; extending the box culverts; adding new traffic signals and lighting on the Route 29 widening project. He provided leadership and worked closely with all project stakeholders to ensure that the team fulfilled the contract requirements when developing all the construction components, including materials, testing, and sampling. **Relevancy**: This design-build project is in Albemarle County, VA. The project included phased construction with multiple traffic shifts; roundabout construction; box culvert extensions; traffic signals and lighting; and roadway widening. **Challenges and Solutions**: This project had significant MOT and public involvement considerations. MOT mitigation strategy entails phasing the construction to minimize impacts to travel on Route 29. The construction inspection team provided real-time adjustments to MOT. MOT is often a primary public outreach issue and developing strategies to maintain traffic, access and incident management while promoting public awareness is key to success.

2) I-95 Widening Project – Dumfries, VA
CES Consulting, Inc., Quality Manager (2013 – 2015)
Owner: VDOT NOVA District; Contact: Brent Herring (VDOT CM), 703-576-2858

Responsibilities and Job Duties: This seven-mile widening project included roadway widening; installing drainage pipes; performing extensive ITS/TMS work; adding overhead signs; and coordinating with the concurrent construction for express lanes within the same project footprint. Avtar managed one VDOT CM and nine CES inspectors to provide project quality management, which included enforcing VDOT specifications and standards; overseeing all testing; documenting and ensuring the correct payment for onsite work; documenting all non-conforming work; remediating and closing out work; and collaborating with FHWA, design engineers, and the contractor to resolve field issues. **Relevancy**: This project required working on, and directly over, a major interstate; coordinating MOT; ensuring the safety of motorists and workers; designing ramp widening and lighting; and providing ITS. **Challenges and Solutions**: This project required coordinating corridor-wide MOT between multiple projects, from I-95 in Alexandria to Spotsylvania; developing a traffic management system for all lane closures; facilitating incident management and teamwork to minimize inconvenience to motorists during the construction phase. The lack of space between adjacent projects caused numerous utility conflicts.

3) I-66 HOV Widening from 234 Bypass to Route 29 – Gainesville, VA
VDOT, Responsible Charge Engineer (2006 – 2009)
Contact: Ken Connors, 571-426-7145

Responsibilities and Job Duties: Avtar served as on-site Responsible Charge Engineer on this project to widen 2.8 miles of I-66 – two new lanes in each direction – and constructing five new bridges along with storm sewer; jack-and-bore; waterline; lighting; and TMS work. The project team fulfilled work on-time and on-budget, which included constructing three new bridges slated for retrofit only. He managed the $14.6M QA/QC budget and a 20-person staff; served as technical source to resolving field and design issues; partnered with the contractor to accelerate work; reviewed and negotiated change orders to build the new bridges; and worked with design engineers to expedite design. The partnering approach between the contractor, owner, and designer required construction to begin before the full design plan was completed. There were no claims on the project. **Relevancy**: This project constructed new bridges and ramps over a major interstate; included extensive MOT and construction phasing with multiple shifts; entailed traffic signal/ITS/lighting work; and required public outreach. **Challenges and Solutions**: The contractor presented value engineering proposals to change bridge rehabilitation to new bridge construction; the contractor also revised TMP plans and tie-in coordination with future projects. The project required extensive public outreach with local HOAs; shopping centers; local hospitals; school board and schools; parks; and local civic organizations.

* 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 and for the QAM, provide a current list of assignments, role, and the anticipated duration of each assignment. **Avtar is the QAM for the Warrenton Southern Interchange Project for one day a week starting in March 2019 for a period of 18 months.**

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title: **Eric Sender, PE, DBIA, Senior Associate**

b. Project Assignment: **Design Manager**

c. Name of all Firms with which you are employed at the time of submitting SOQ. In addition, please denote the type of employment (Full time/Part Time): **Wallace Montgomery – Full Time**

d. Employment History: With this Firm **25** Years With Other Firms **3** 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):

Wallace Montgomery, Design Manager, 1994 – Present

Eric has designed and managed both design-bid-build and design-build contracting approaches for many types of transportation projects, including new roadways and interchanges; interchange modifications; expressway-arterial realignments and capacity-widening improvements; roundabouts; and roadway multimodal retrofits. He developed preliminary geometric designs for minimizing impacts, facilitated utility relocation coordination, and provided general engineering consultant support services to the Maryland Department of Transportation State Highway Administration (MDOT SHA) for their delivery of design-build projects along the US Route 113 corridor (North Phase 3 and South Phase 1) from 1999 to 2003. The Phase 3 project established a utility relocation corridor, which earned it a National AASHTO Award for Innovation. He has spent the past 15 years as a Design Manager, coordinating design disciplines and ensuring that project designs conformed with the RFP for the following five design-build projects:

- Middletown Road Phase 1B2 Realignment / Capacity Improvements Design-Build ($8M) – DM
- Maryland Route 2 at Friendship / Sansbury Road Roundabout Design-Build ($1.9M) – DM
- I-95 at Contee Road Interchange Design-Build ($33.7M) – DM
- US Route 113 Dualization Phase 3 – South Design-Build ($32M) – DM
- Maryland Route 404 From US Route 50 to Holly Road Dualization Design-Build ($105.7M) – DM

Eric has over 28 years of experience in designing transportation roadway projects. He is skilled in developing studies, designs, and construction documents; he has also managed numerous multi-discipline, multiple design consultant efforts. He is vastly familiar with AASHTO's highways/streets and roadside design policies and guidelines. He is also very knowledgeable about the FHWA's *Manual on Uniform Traffic Control Devices for Streets and Highways.* Eric's areas of expertise include road geometrics and drainage design; construction staging/sequencing and maintenance of traffic (MOT) development; with extensive knowledge of traffic engineering; structural; stormwater management (SWM); erosion sediment control (ESC); and utility relocation designs; and environmental permitting. He offers a great understanding in managing multi-disciplined transportation projects and can anticipate potential design pitfalls, while maintaining project objectives and critical paths.

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:
University of Pittsburgh, Pittsburgh, Pennsylvania / BS / 1990 / Civil Engineering

f. Active Registration: Year First Registered/ Discipline/VA Registration #:
2011 / Professional Engineer / VA PE 0402048790
2017 / DBIA Designated Design-Build Professional / 2370

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.)

1) MD Route 2 at Friendship / Sansbury Road Roundabout Design-Build – Anne Arundel County, MD
Wallace Montgomery, Design Manager (2006 – 2007)
Owner: MDOT SHA; Contact: Eric Marabello, 410-545-8770, emarabello@sha.state.md.us

Responsibilities and Job Duties: Eric led the complete design efforts on this safety and traffic operations improvements roundabout design-build project. Design efforts included roadway; MOT; hydrologic/hydraulic (H&H); SWM; ESC;

traffic (lighting, HIB signals, signing, marking); construction plans development; environmental design; and securing permits. He coordinated roadway and drainage designs with utilities and environmental agencies to avoid/minimize impacts. He also facilitated public outreach to inform roadway users about the project's construction sequencing/MOT, as well as the final roundabout's operations. **Relevancy**: This intersection experienced high-speed and severe crashes along MD 2; there were also increasing traffic volumes from the side streets. The project objective was to provide a safer and operational solution for this four-way approach intersection. The roundabout provided traffic calming to slow speeds and ensured a safe continuous flow of traffic. **Challenges and Solutions**: The roundabout at the existing intersection posed challenges for MOT and construction safety. Supported by traffic analysis, Eric and his Team implemented an innovative ATC to address these issues. The ATC detoured the side streets while keeping the MD 2 open throughout the construction process. The roundabout was built in two stages: The first stage constructed the roundabout's two outside thirds at the side streets while maintaining traffic on MD 2 through the middle section; the second stage diverted traffic onto the constructed sides and roundabout movement to complete the middle third. ***The project was a finalist for 2008 Maryland Quality Initiative (MdQI) Award of Excellence for Traffic and Safety***.

2) MD Route 404 Dualization Design-Build Project – Caroline, Queen Anne's and Talbot Counties, MD
Wallace Montgomery, Design Manager (2016 – 2018)
Owner: MDOT SHA; Contact: Sean Campion, PE, DBIA, 410-545-8863, scampion@sha.state.md.us

Responsibilities and Job Duties: Eric oversaw the complete multi-discipline, multi-consultant design efforts and ensured conformance with the RFP for 246 final design submittals on this safety and operations project. The project constructed two new lanes along nine miles of existing MD 404 to create a four-lane divided highway. Design engineering efforts included highway; structural; H&H-drainage-SWM-ESC; transportation management plan (TMP)/MOT; pavement; geotechnical; traffic (lighting, ITS, signing, marking); landscaping; construction plans development; utility relocation coordination; securing permits; and ensuring environmental compliance. Eric facilitated the development of seven ATCs, which saved $11M. He assisted the Utility Coordinator and Environmental Compliance Manager at their monthly coordination meeting ensuring project objectives and proposed improvements were maintained. **Relevancy**: This corridor experiences extremely high traffic volumes from summer vacationers traveling to the Delmarva beaches. The project widened the corridor, reconfigured the intersections, and consolidated the access points to improve the corridor's safety and operations. **Challenges and Solutions**: The project was completed within an aggressive 18-month timeframe. Eric developed a comprehensive "rolling" submissions final design plan that used two other prime design firms and 11 subconsultants to support a three contractor-three segmented project. This approach facilitated the continuous, concurrent work efforts of rough grading; 20 waterway bridge and cross culvert crossings/extensions (with instream time-of-the-year restrictions); and final paving in each segment. To achieve optimal operations and safety, Eric and his Team designed 13 J-Turn and two Continuous Green-T innovative intersections to fully eliminate crossover movements from the side streets. Eric focused on ensuring that intersection geometrics-layouts were in accordance with AASHTO and RFP requirements, which included auxiliary lanes queue storage requirements; adequate acceleration/deceleration lengths for safe merging movements; and intersection geometry to accommodate turning movements for required design and non-standard farm and emergency response vehicles. ***The project received a 2018 AASHTO America's Transportation Award for Quality of Life / Community Development***.

3) MD Route 5 and I-95/I-495 Capital Beltway Interchange Modification – Prince George's County, MD
Wallace Montgomery, Project Design Manager (2001 – 2008)
Owner: MDOT SHA; Contact: Eric Marabello, 410-545-8770, emarabello@sha.state.md.us

Responsibilities and Job Duties: Eric oversaw the multi-discipline, multi-consultant design efforts of this project to modify the interchange of the Capital Beltway with MD 5; the project also implemented Beltway safety and resurfacing improvements through the interchange. Design efforts included post-planning studies/alternatives; traffic analysis; constructability reviews; NEPA and IMR reevaluations; highway, structural, H&H-drainage-SWM-ESC, TMP/MOT, pavement, and landscape design; geotechnical and traffic (signal mods, lighting, ITS, signing, marking) engineering; and storm drain inspections. The Team developed construction documents, prepared right-of-way plats, and obtained environmental (stream impacts) permits. Eric was responsible for delivering roadway, drainage, and staging/MOT designs; developing final geometrics; facilitating enhanced final interchange and MOT operations; and minimizing impacts. Eric facilitated project design and construction partnering meetings. This was a successful pilot project for the MDOT SHA Partnering in Planning and Design initiative. **Relevancy**: The primary interchange modification features included a new semi-direct flyover ramp from the Beltway Inner Loop to MD 5 South and a reestablished cloverleaf ramp on a new alignment from MD 5 North to the Inner Loop. The modifications eliminated the existing LOS F weave operations between loop ramps along the Inner Loop and MD 5 South, which is like the I-64 Exit 118 element. The design also included a dual lane departure (choice lane and aux lane) from the Inner Loop to MD 5 North, like the proposed US 29 NB exit to Fontaine Avenue. **Challenges and Solutions**: With significant changes in the planning phase traffic forecasts, Eric's Team revised the IMR to incorporate the new forecasts and to address the interchange geometric refinements/revisions. The Team coordinated accordingly with FHWA and local agencies throughout the IMR process to ensure that they incorporated all comments into the project work. ***The project was a finalist for 2009 MdQI MDOT SHA Modal Over $5M Award and received an ACEC-Maryland Honor Award in Transportation***.

* 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 and for the QAM, provide a current list of assignments, role, and the anticipated duration of each assignment. **Not applicable for this position.**

ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

Brief Resume of Key Personnel anticipated for the Project.

a. Name & Title: **William "Bill" Richards, PE – Construction Engineer**

b. Project Assignment: **Construction Manager**

c. Name of all Firms with which you are employed at the time of submitting SOQ. In addition, please denote the type of employment (Full time/Part Time): **Curtis Contracting Inc. – Full Time**

d. Employment History: With this Firm **18** Years With Other Firms **15** 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):

Curtis Contracting, Inc., Construction Engineer / Construction Manager, 2000 – Present

Bill manages all aspects of daily field construction activities; coordinates with the project design team and stakeholders; coordinates and manages subcontractors; and oversees construction activities to ensure that the project team follows quality standards, specifications, and schedules. Bill communicates directly with the Lead Designer; provides construction means and methods input; participates in over-the-shoulder reviews; and shares innovative design ideas. Bill previously served as an Assistant Resident Engineer with VDOT. He is a licensed Virginia Professional Engineer, and spent the last 20 years managing a variety of interchange improvements, including multiple successful design-build (DB) projects. When design issues arise during construction, Bill contacts the Lead Designer and coordinates quick solutions. Bill understands the concerns and requirements of each stakeholder throughout the entire DB process, specifically for a project that include multiple interchanges.

- I-264 Roadway Rehabilitation Design-Build ($73M), 11/2013 to11/2015 – Construction Manager
- I-295/Meadowville Road Interchange Design-Build ($11.7M), 9/2010 to 11/2011 – Construction Manager
- Warhill Infrastructure and Roadways Design-Build ($37.4M), 4/2006 to 8/2008 – Construction Manager
- US Route 199 Widening Design-Build (PPTA) ($32.4), 5/2004 to 4/2006 – Construction Manager

Frederick R. Harris, Associates Vice President, 1998 – 1999
VRTBA, Engineer Director, 1990 – 1997
VDOT, Assistant Resident Engineer for Chesterfield, 1987 – 1990

Bill has over 30 years of experience on major infrastructure projects in Virginia. His project experience includes heavy highway and bridge construction; airport facilities; athletic facilities; environmental; and other site development projects. Clients have included VDOT, local municipalities, DOD, GSA, and FHWA. Bill will serve as a "boots-on-the-ground" Construction Manager, dedicated to this project full-time from award to final acceptance.

e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization:
Virginia Polytechnic Institute and State University, Blacksburg, Virginia / BS / 1984 / Civil Engineering

f. Active Registration: Year First Registered/ Discipline/VA Registration #:
1998 / Professional Engineer / VA Registration #027950
Virginia DCR Responsible Land Disturber Certification / #RLD03340 (Exp. 2/1/2019)
VDOT Erosion and Sediment Control Contractor Certification / #1-01053 (Exp. 2/21/2019)
VDOT Advanced Work Zone Traffic Control / #111417013 (Exp. 11/30/2021)

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.)

1) I-264 Roadway Rehabilitation Design-Build Project – Virginia Beach, VA
Curtis Contracting, Inc., Construction Manager (Nov 2013 – Nov 2015)
Owner: VDOT Hampton Roads District; Contact: Mr. James Utterback, 757-802-0005

Responsibilities and Job Duties: Bill was directly responsible for successfully completing this $73M DB project along a main interstate route to the City of Virginia Beach; over 185,000 vehicles travel through this 12-mile section of I-264 every weekday. He was responsible for public relations; utility coordinating; QA/QC; environmental; safety; schedule; and ensuring that construction conformed with the design/VDOT plans and specifications. Bill served in a full-time capacity and was at the site every day overseeing multiple simultaneous construction activities; managing the interchange

modifications; and overseeing construction crews and subcontractors. He managed significant traffic control to install over 190,000 tons of asphalt paving; 130,000 SY of full depth concrete; four miles of roadway widening; 70,000 LF of barrier; jack & bore of drainage culverts; drainage structure/box culverts; signage and over 1,000,000 LF of pavement markings. As the DBT's main point of contact on-site, he communicated and coordinated daily with VDOT, City of Virginia Beach, permitting agencies, and stakeholders. **Relevancy**: This project involved constructing multiple interchange improvements concurrently and required modifying and coordinating an extensive TMP and logistics to accommodate the construction progress without significant impact to local events and tourist traffic. Bill worked closely with the state police and local law enforcement to ensure drivers and workers are safe through the changing construction zones. VDOT used CCI's public outreach plan for this project for future DB and major project undertakings within the Hampton Roads District. **Exceptional Performance**: Within two months, Bill was instrumental in expediting the schedule to advance design, permitting, and start construction work. Bill adjusted sequence and scheduling to overcome a potentially schedule delay. Unforeseen and rapidly-deteriorating concrete pavement conditions required adding more than 90,000 SY of concrete patching. Even so, the project was completed within the original contract duration. Bill's focus on safety and accident prevention resulted in over 200,000 man hours without a single lost time injury.

2) I-295/Meadowville Road Interchange Design-Build Project – Chesterfield County, VA
Curtis Contracting, Inc., Construction Manager (Sept 2010 – Nov 2011)
Owner: VDOT Richmond District; Contact: Mr. Shane Mann, 804-524-6091

Responsibilities and Job Duties: Bill managed the construction for this fast-track $11.7M DB project that widened I-295 just south of the James River at Meadowville Road and constructed new on- and off-ramps for Phase I of the I-295/Meadowville Road interchange. Bill served in a full-time capacity. He was at the project site every day overseeing the day-to-day construction activities including two signalized interchanges; signage; guardrail; asphalt pavement; concrete pavement; drainage; utility relocation; pavement marking; clearing; and mass grading. Bill was responsible for monitoring the QC; environmental compliance; public and worker safety; and the CPM schedule. Bill's daily duties included coordinating labor and equipment resources, material deliveries, and subcontractors. He directed construction means and methods, and communicated daily with the QA/QC inspection staff to schedule inspections, discuss work operations, and document new major work activities. As the on-site point of contact for the DBT, Bill was responsible for communicating and coordinating with VDOT, Chesterfield County, permitting agencies, and adjacent property owners. Bill's focus on safety and accident prevention resulted in over 85,000 man hours without a single recordable injury for the entire project. **Relevancy**: This project involved constructing multiple interchange modifications concurrently. Bill directed and coordinated an extensive TMP, which he regularly modified to accommodate the construction progress without impacting local businesses and emergency response. Bill directed a significant utility coordination effort to protect a high-security fiber-optic transmission line for the Commonwealth of Virginia's data center. He worked closely with Virginia State Police and local law enforcement to ensure that workers and drivers navigated safely throughout ever-changing construction zones. **Exceptional Performance**: Bill managed the design and accelerated construction of multiple interchanges to complete this project within a 14-month period. Chesterfield County needed the DBT to adhere to the date of completion, which enabled the County to secure Amazon's commitment to construct a 1,000,000 SF distribution center adjacent to the project area. This project was presented at the ***2011 Governor's Transportation Conference*** and won the ***2013 DBIA National Transportation Merit Award***.

3) US Route 199 Widening Design-Build (PPTA) Project – James City County, VA
Curtis Contracting, Inc., Construction Manager (May 2004 – April 2006)
Owner: VDOT Hampton Roads District; Contact: Mr. Kevin Gregg, 804-524-6999

Responsibilities and Job Duties: Bill was responsible for managing the construction of multiple intersections for this three-mile, $32.4M DB widening project. Bill served in a full-time capacity and was on the site every day managing construction of a 1,200 LF parallel bridge; 1,500 LF of concrete barrier wall; 300,000 CY of excavation; 45,000 tons of asphalt pavement; interchange improvements; and roadway relocation. Bill was responsible for day-to-day construction operations; QC; environmental compliance; public and worker safety; and monitoring the CPM schedule. Bill's daily duties included coordinating labor and equipment resources; monitoring material deliveries; overseeing subcontractor activities; and directing construction means and methods. He communicated daily with the QA/QC inspection staff to schedule inspections, discuss work operations, and to document new major work activities. As the DBT's on-site point of contact, Bill communicated and coordinated with VDOT, James City County, permitting agencies, and impacted property owners. **Relevancy**: This project involved constructing multiple interchange modifications concurrently. Bill directed and coordinated an extensive TMP, which he regularly modified to accommodate construction progress without impacting local businesses and emergency response. Bill directed significant utility coordination and environmental protection efforts for tidal wetlands and waterways. He worked closely with Virginia State Police and local law enforcement to ensure that workers and drivers were safe throughout the ever-changing construction zones. **Exceptional Performance**: Bill coordinated an accelerated schedule to ensure project completion for the 2007 Jamestown 400-year anniversary celebration. Bill coordinated with NPS; Jamestown/Yorktown Foundation; City of Williamsburg; James City County; and VDOT to support the stakeholder's concerns about the project's impact on the anniversary preparation.

* 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 and for the QAM, provide a current list of assignments, role, and the anticipated duration of each assignment. **Construction Manager for Woolridge Road in Chesterfield Co-he will be replaced on the Woolridge Road project upon award of this project.**

Appendix 3.4.1
Work History Forms

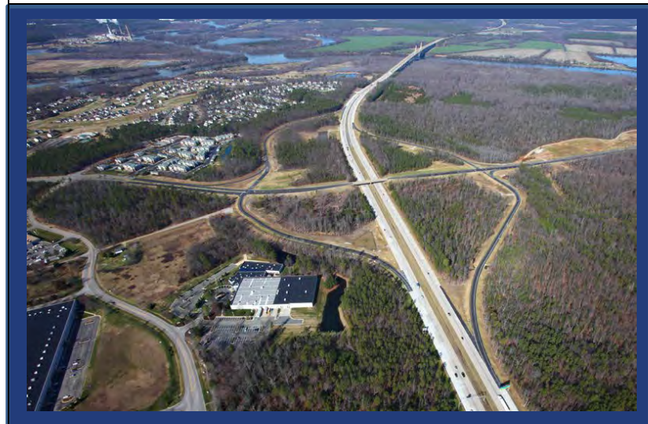
ATTACHMENT 3.4.1(a)

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 or Owner and their Project Manager who can verify Firm's responsibilities.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement.(in thousands)
					Original Contract Value	Final or Estimated Contract Value	
Name: **I-295 / Meadowville Road Interchange Improvements Design-Build** Location: **Chesterfield County, VA**	Name: **Parsons Brinckerhoff**	Name of Client/ Owner: **VDOT** Phone: **804.674.2800** Project Manager: **Jeff Roby** Phone: **804.674.2800** Email: **Jeffrey.roby@vdot.virginia.gov**	**12/2011**	**11/2011** **(One month ahead of schedule)**	**$11,715**	**$11,820** **(Overage due to additional concrete pavement replacement required by owner)**	**$11,820**

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.



SCOPE AND COMPLEXITY SIMILARITIES

- **VDOT Design-build delivery**
- **Widening of a major commuter roadway under traffic**
- **Construction of signalized interchange in phased stages**
- **Construction and relocation of utilities**
- **Public relations efforts with local business/communities**
- **Ramp improvements**
- **Drainage improvements/Major culvert extension**
- **Environmental awareness/permitting**
- **Construction of new roadway**
- **Maintenance of traffic**
- **Quality Assurance/Quality Control**

Project Description

Curtis Contracting, Inc. (**CCI**) was awarded this VDOT design-build (DB) project in September, 2010. This fast-track project constructed a new interchange facility at Meadowville Road and I-295. The project also included widening 1.1 miles of Meadowville Road, converting it from a two to a four-lane facility from North Kingston Ave. to Meadowville Lane. The half-mile section from North Kingston Avenue to the bridge over I-295 is a four-lane divided section with a raised median. Widening Meadowville Road also included making intersection improvements to North Kingston Avenue and adding turn lanes to increase capacity. The design included two signalized intersections at the interchange ramp termini along Meadowville Road.

Specific project elements included constructing four new ramps; widening from two to four lanes; coordinating and relocating major utilities; establishing MOT through phased construction; performing public outreach; obtaining wetland permitting; extending the major culvert; implementing a temporary traffic control barrier; adding 26,000 SY of concrete pavement; adding 23,000 tons of asphalt; adding 27,000 tons of aggregate base material; constructing a wetland/stormwater; adding a guardrail; performing 120,000 CY of mass excavation; and performing 20,000 CY of borrow excavation.

Coordinating and relocating utilities posed significant challenges on this project. Utilities for Dominion Power and Verizon were present in the corridor and needed to be relocated. Dominion had an overhead high power facility that ran parallel to Meadowville Road; this facility conflicted with the interchange ramps. Verizon also had a fiber-optic facility parallel to Meadowville Road. Both utility providers served the top secret facilities at Northrop Grumman, which required the DBT to implement measures that didn't interrupt power and communications at these critical site facilities. Chesterfield County owned a 30" waterline that ran parallel to the project area. The **CCI** DBT redesigned roadway improvements to avoid relocating the waterline. Even though this redesign didn't require significant impacts, the design still had to develop a concrete encasement of the waterline to fulfill minimum cover requirements.

Exceptional Performance

This project received VDOT's high praise and appreciation from VDOT. The project was also recognized by the transportation industry numerous times. The Governor signed a $3B transportation funding package at this site; this package was the largest allocation to Virginia transportation funds in the last 20 years. The 2011 Governor's Transportation Conference selected this project as one of five projects that were presented to conference attendees.

Tom Hawthorne, VDOT Richmond District Administrator: "thank you for the tremendous job you and your staff did…great example and success story…We are extremely pleased with the quality of the product that you delivered…our greatest appreciation was for your safety and environmental stewardship from beginning to end."

Chip Frazer, VDOT Richmond District Construction Manager: "Thank you for the tremendous job you and your team did in design, constructing and on time delivery…The Curtis Contracting Inc. Team was extremely professional and the quality of every phase of your work was beyond expectation…I cannot express how satisfied we are with the efficiency and quality of the work".

This project received the 2013 DBIA National Merit Award for Transportation – Design Build.

Similar Risks Mitigated

Securing and Maintaining Public Support – The DBT coordinated all stakeholders, VDOT, utility owners, and businesses by holding weekly coordination and job progress meetings to discuss issues/solutions, scheduling, partnering, safety, and MOT. These meetings mitigated conflicts and facilitated open communication about all concerns. The project area was near a fire station, so the DBT coordinated with the fire station's representatives to ensure that emergency responders could mitigate the one lane shut-down on the bridge. **CCI** deployed flaggers to facilitate emergency access. The DBT obtained VDOT's approval to accelerated construction and reduce closure time for the one lane by changing the roadway section to full-depth asphalt.

Delays from Utility Relocations – Since the project had an aggressive 15 month start-to-finish schedule, **CCI** and their design engineers developed an early construction package to coordinate with the public and private utility providers; this approach ultimately led to undergrounding a high voltage power line and fiber-optic cable. **CCI** managed this work concurrently with roadway construction, and ensured that it didn't interrupt the top secret facilities at Northrop Grumman.

Safety of Roadway Users/Workers – **CCI** wanted to avoid causing traffic congestion and impacting emergency vehicle response-times. **CCI** proposed an alternative construction approach, and revised the MOT, to open an otherwise restrictive traffic flow across the Meadowville Road overpass. **CCI** obtained VDOT's approval to implement these revisions, which improved public travel options and established continuous/uninterrupted access for emergency response vehicles.

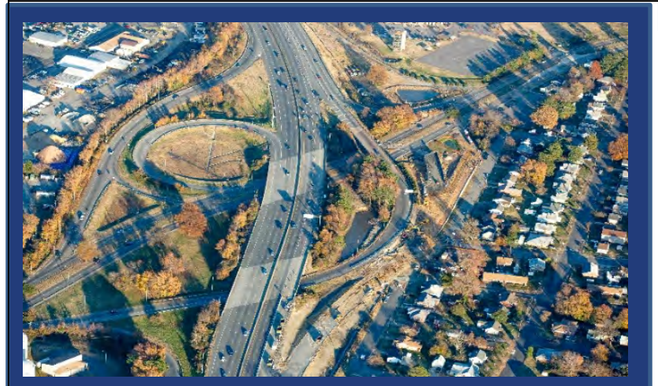
ATTACHMENT 3.4.1(a)

LEAD CONTRACTOR - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime design consulting firm responsible for the overall project design.	c. Contact information of the Client or Owner and their Project Manager who can verify Firm's responsibilities.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement.(in thousands)
					Original Contract Value	Final or Estimated Contract Value	
Name: **Martin Luther King Expressway Extension – Contract A** Location: **City of Portsmouth, VA**	Name: **Parsons Brinckerhoff**	Name of Client/ Owner: **SKW Constructors, LLC** Phone: **757.673.9487** Project Manager: **Wade Watson** Phone: **757.673.9487** Email: **wade.watson@skanska.com**	**10/2016**	**10/2016**	**$45,450**	**$46,753 (Overage due to owner requested additional work)**	**$46,753**

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.



SCOPE AND COMPLEXITY SIMILARITIES

- **Interstate mainline widening and ramp improvements under traffic**
- **Intersection and interchange improvements – linking secondary and interstate roadways**
- **Reconfiguring existing traffic features**
- **Traffic Signalization and ITS systems**
- **Drainage Improvements – culvert extensions**
- **Utility Relocation**
- **Barrier work**
- **Environmental controls**
- **Maintenance of Traffic**
- **Phased Construction**
- **Temporary detours**
- **Coordination with numerous stakeholders**

Project Description

Curtis Contracting, Inc. (**CCI**), was awarded Contract A of the Martin Luther King Expressway extension in August of 2013. This project constructed multiple interchanges, intersections, ramps and bridge structures. **CCI** coordinated with contractors working at adjacent sites to perform widening work along I-264, which is an extremely congested route for commuters and truck traffic. **CCI** performed additional work at the interchanges that connect I-264 to other secondary routes, including Frederick Boulevard, Portsmouth Boulevard and Des Moines Avenue.

CCI was challenged to establish access routes to construct this new and expanded roadway footprint around existing businesses, residences, existing roadways, and environmental and cultural resources. Each element of the project required **CCI** to plan the construction approach within the construction easements. The plan also had to facilitate material and equipment delivery. **CCI** performed vibration monitoring, dust control, and off-hour noise mitigation to alleviate impacts to adjacent residences and businesses.

Elements of Scope

- Roadway and ramp construction
- Interchange/Intersection construction
- Traffic signalization and ITS systems
- Drainage improvements – to include multiple culvert extensions
- Complex MOT through multiple phases of construction
- Bridge and MSE wall construction
- Utility relocation
- Guardrail installation
- 200,000 CY of mass excavation, and 40,000 CY of borrow excavation
- 4,800 LF of barrier wall

CCI's focus on safety enabled us and our subcontractors to complete over 380,000 man hours without a single recordable injury.

Exceptional Performance

CCI exceeded the project DBE participation requirement of 35%. Through VDOT requested additional scope items, **CCI** delivered the project on-time. **CCI** implemented a schedule recovery plan that included conducting a traffic analysis of the project site to facilitate longer work shifts. **CCI** took this information to VDOT District Traffic Control, who agreed that longer work shifts would not impede the flow of traffic during specific hours. Once VDOT approved this approach, **CCI** dedicated more construction crews to complete the project on-time.

The project won the ENR 2017 Project of the Year Award.

Similar Risks Mitigated

Securing and Maintaining Public Support – The area was densely-populated, so the project plans and construction had to accommodate local residences, businesses, a historical cemetery, and environmental wetlands. **CCI** coordinated with the cities of Norfolk, Portsmouth, and Virginia Beach, to minimize traffic impacts and accommodate seasonal traffic volumes. We also coordinated construction activities with the nearby churches, to ensure that the process didn't impact weddings and funerals.

Delays from Utility Relocations – This project site had a number of constraints, such as numerous wet and dry utilities through the construction zone. **CCI** had to identify and protect utilities, since these utilities impacted the guardrail installation, roadway widening, bridge foundations, soundwall foundations, and other components of the work. **CCI** coordinated with the local and private utility owners to identify all existing utilities, coordinate any necessary outages/bypasses, and maintain service to all utility stakeholders without interrupting construction.

Safety of Roadway Users/Workers – Since there were multiple contracts in the project area, CCI had to coordinate MOT to minimize impacts on the travelling public. **CCI** performed daily MOT inspections to maintain traffic flows and promptly address any issues. **CCI** had to accommodate and consider a wide variety of transportation modalities during the construction process. This urban environment was near public housing, so the project required considering bicycles, buses, pedestrians, as well as a local railway line that bisected the project site.

ATTACHMENT 3.4.1(a)

LEAD CONTRACTOR - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

a. Project Name & Location	b. Name of the prime design consulting firm responsible for the overall project design.	c. Contact information of the Client or Owner and their Project Manager who can verify Firm's responsibilities.	d. Contract Completion Date (Original)	e. Contract Completion Date (Actual or Estimated)	f. Contract Value (in thousands)		g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement.(in thousands)
					Original Contract Value	Final or Estimated Contract Value	
Name: **Route 58 and 742 Interchange Improvements** Location: **Southampton County, VA**	Name: **Volkert, Inc.**	Name of Client/ Owner: **VDOT** Phone: **757.925.2500** Project Manager: **John Jacobs** Phone: **757.925.2500** Email: **john.jacobs@vdot.virginia.gov**	**12/2018**	**09/2018** **(3 months ahead of schedule)**	**$14,994**	**$16,030** **(Overage due to incentives and mitigation efforts of design error)**	**$16,030**

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.

SCOPE AND COMPLEXITY SIMILARITIES

- **Roundabout construction**
- **Ramp Improvements**
- **Reconfiguring existing traffic features**
- **Replacement of traffic signals with alternate intersection**
- **Drainage Improvements**
- **Utility Relocation**
- **Barrier work**
- **Environmental awareness**
- **Construction of new roadway**
- **Maintenance of Traffic**
- **Public Relations**
- **Phased construction**
- **Temporary detours**

Project Description

Curtis Contracting, Inc. (CCI) was awarded this $16M VDOT bid-build project in November of 2015. The project completely reconfigured existing signalized at-grade T intersection at Routes 58 and 58 Business in Courtland, Southampton County, Virginia to improve truck and commuter traffic operations through this congested area. A realigned Route 742 with two bridges crossing Route 58 and wetland areas and two roundabouts replaced the existing signalized intersections. One new roundabout was constructed at the intersection of relocated Route 742 and Route 58 Business, and the second south of Route 58 on relocated Route 742. The southern roundabout was supported entirely with a mechanically stabilized earth (MSE) wall system. Three ramps were constructed to connect Route 58 with the roundabouts and complete the interchange. The project included supporting drainage systems with three Best Management Practices to address water quality and quantity issues.

The project entailed modifying the existing on- and off-ramps and constructing new ramps and roadway alignments. **CCI** identified a design elevation error and provided the mitigating solution. This solution included constructing roadway contours to facilitate temporary drainage and uninterrupted traffic flow. CCI produced MOT plans to place asphalt pavement through a complicated super-elevated roadway section. Interim drainage solutions for private properties had to mitigate impacts to local businesses along the roadway corridor.

CCI worked closely with a local Native American tribe to facilitate uninterrupted access to their reservation. CCI served as a liaison between the VDOT and Southampton County and the Native American tribe. **CCI** voluntarily donated structures and foundations, and erected multiple informational signs for the tribe's recreational area.

Elements of Scope

- Construction of two roundabouts
- Temporary and permanent barrier
- Storm drainage
- Wetland/stormwater basin construction
- MOT through phased construction
- Bridge construction
- Guardrail installation
- 50,000 CY of mass excavation and 55,000 CY of borrow excavation, as well as 30,000 CY of select fill
- 15,000 tons of asphalt pavement
- 4800 LF of barrier wall

Exceptional Performance

VDOT awarded **CCI** the maximum early completion incentive bonus for completing the project four months ahead of the required interim completion date. **CCI** self-performed all roundabout and roadway construction; bridge construction; grading; asphalt paving; guardrail; sign and signal work; erosion and sediment control; and MOT. **CCI** negotiated with the local Native American tribe to excavate several recreational ponds and use the material as borrow. This arrangement significantly reduced the amount of truck traffic on Route 58 and Route 35, since the construction team hauled most of the borrow material directly from the reservation to the project site.

CCI's focus on safety enabled CCI and its subcontractors to complete all work, to include over 65,000 man hours, without a single lost time injury.

Similar Risks Mitigated

Securing and Maintaining Public Support – CCI engaged the local Native American tribal chief to ensure that the work didn't impact access in and out of the reservation. **CCI** voluntarily developed structures and foundations and erected multiple informational signs for the tribe's recreational area. **CCI** participated in Southampton County public information meetings to solicit support from the community and local businesses.

Safety of Roadway Users/Workers – CCI phased the north roundabout construction so that commuters and trucks could pass safely through the work zone. We developed a MOT plan that facilitated placing asphalt pavement through a complicated super-elevated roadway section. The interim drainage solutions had to mitigate impacts to local businesses along the roadway corridor.

Delays from Utility Relocations – CCI phased construction around the existing traffic signal to facilitate constructing adjacent roadways, roundabouts, and ramps without impacting traffic signal function.

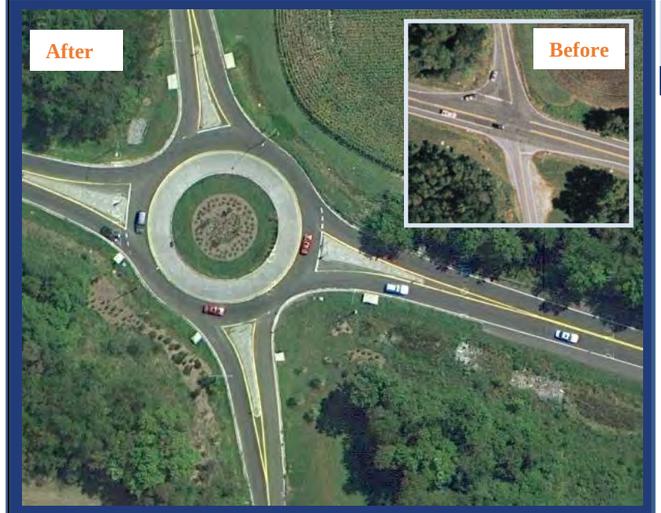
ATTACHMENT 3.4.1(b)

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: **MD Route 2 at Friendship / Sansbury Road Roundabout Design-Build** Location: **Anne Arundel County, MD**	Name: **Brawner Builders, Inc. (formerly Murphy Bird & Phillips, Inc.)**	Name of Client: **Maryland Department of Transportation State Highway Administration (MDOT SHA)** Phone: **410.545.8770** Project Manager: **Eric Marabello** Phone: **410.545.8770** Email: **emarabello@sha.state.md.us**	**10/2006**	**04/2007** **(3 months ahead of schedule)**	**$1,848**	**$1,911** **(Overage due to owner request to include HIB traffic signals along MD 2)**	**$204**

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. Project/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.



SCOPE AND COMPLEXITY SIMILARITIES

- **Design-build delivery**
- **Roundabout built at the existing intersection addressing safety and operations**
- **Innovative temporary traffic control / MOT solutions**
- **Integrated advanced warning features**
- **Utility and environmental impacts avoidance / minimization**
- **Roadway culvert crossings relocations**
- **Public workshops to gain public consensus**

Design Work Office Location: Hunt Valley, Maryland

WM's Role: Prime Designer

Project Description

Wallace Montgomery (**WM**) served as a subcontractor to Brawner Builders, Inc. under a MDOT SHA design-build delivery contract. **WM** completed the final design, prepared construction plans, and secured permits/approvals to construct a 150' inscribed (outside) diameter single-lane roundabout at the MD 2 intersection with Friendship and Sansbury Roads. MD 2, which dates back to the 1800s, is a heavily commuter-traveled north-south corridor; it connects residents in southern Anne Arundel and Calvert counties to employment centers in Annapolis and Washington, DC. This area experienced substantial residential development, which increased the traffic volumes around the Friendship/Sansbury Road. The intersection had a history of accidents with high levels of property damage and personal injury. MDOT SHA determined that a roundabout would effectively calm traffic and slow down the prevailing MD 2 traveling speeds. The roundabout would enhance peak-hour intersection operations for the four-leg intersection, and establish an aesthetically-pleasing entrance to the Town of Friendship.

The roundabout's design incorporated barrier curb along the inscribed diameter and the roadway approaches' splitter islands to create channelization and reduce traveling speeds through the circle from the adjoining open-section roadways. The design placed a mountable concrete apron around the roundabout's central island to accommodate truck traffic's turning movements, separate the circulatory road and the central island, and maintain the reduced speeds throughout the roundabout. The roundabout also incorporated roadside geogrid cellular confinement load support systems adjacent to the acute northwest and southeast curb return corners. This load support system supported off-tracking wheel-paths from right-turning tractor-trailers.

Other project improvements included new and upgraded intersection lighting; SWM environmental site design micro-scale facilities; and enhanced landscaping of the central island, adjacent forest edge lines, and SWM areas. The design placed flashing hazard identification beacon (HIB) traffic signals along MD 2 to provide advanced warning notice about the roundabout and for additional traffic calming measures. **WM**'s engineering design efforts included field surveys-utility locating; highway, H&H-drainage-SWM-ESC, pavement, and landscaping design; traffic analysis; MOT development; and geotechnical and traffic (signals, lighting signing, marking) engineering. We developed construction plans, and ensured compliance with environmental regulations. In addition, **WM** completed as-built surveys and prepared as-built plans (including SWM facilities) to secure final project acceptance. **WM** used the traffic analysis to develop and implement an innovative MOT/construction staging ATC approach to reduce construction by three months. This approach also maximized work zone safety for the traveling public and the construction forces. ***The Project was a finalist for the 2008 Maryland Quality Initiative Award of Excellence for Traffic and Safety.***

Challenges and Solutions

Bicycle Compatibility: MD 2 is a dedicated bike route through Anne Arundel and Calvert counties. Our final roundabout configuration design and all temporary traffic control/construction staging for the roundabout incorporated 16' lanes or 12' travel lanes with 4' shoulders to maintain bike compatibility.

SWM/Drainage: Our design used precast curb opening with top slab structures and roadside ditches to collect and convey roadway drainage to the SWM facilites. **WM** designed two micro-scale wet swale SWM facilities to fully satisfy water runoff quality and quantity control requirements. Our H&H analysis enabled us to design the replacement of three roadway cross culverts, including a caddy-corner culvert. These culverts conveyed roadside open-section drainage through the intersection.

Environmental Permitting: The intersection's northeast quadrant contained a significant wetland. Our ultimate roundabout intersection footprint reduced wetland impacts even beyond what the RFP requested. Our drainage-SWM designs also maintained the existing contributing areas and the conveyance supplying the wetland. Finally, we coordinated with the Maryland Historic Trust to document that the proposed roundabout had no adverse affects on the adjacent historic property.

Similar Risks Mitigated

Securing and Maintaining Public Support – The DBT and MDOT SHA collaboratively engaged with local residents, MD 2 commuters, bicycle users groups, and the nearby Friendship United Methodist Church. We held an open house pre-construction kick-off meeting to inform the road users, and receive feedback, about our construction scheduling, staging and proposed temporary traffic control. We held a follow-up meeting before the second construction stage's traffic switch. We also held a final workshop to educate users to negotiate the roundabout using simulated models. The construction team coordinated church events (funerals, weddings) to minimize inconveniences to residents and parishioners.

Delays from Utility Relocations – We coordinated our roadway and drainage designs with BGE (electric), Verizon, and AT&T to throughly understand their clearances/cover requirements. We refined our designs (for roundabouts and entry/exit locations) to avoid impacting pole/aerial and underground fiber optic facilities. During the construction phase, we coordinated scheduling and access needs for BGE and Verizon to perform minor underground facility relocations of existing lighting power and land telephone services; along with new power services for the roundaboout lighting and HIB signals.

Safety of Roadway Users/Workers – With the roundabout exactly at the existing intersection provided significant safety issues for motorists and workers during construction. The DBT implemented a MOT plan to close and detour the side streets while keeping the MD 2 open throughout the construction. We developed the roundabout in two stages: The project maintained traffic on MD 2 through the middle section as the construction team built the roundabout's two outside thirds at the side streets. To complete the middle, we diverted traffic into the constructed sides and the roundabout movement.

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: **MD 5 and I-95 / I-495 Interchange Improvements Design-Bid-Build** Location: **Prince George's County, MD**	Name: **Cherry Hill Construction, Inc.**	Name of Client: **Maryland Department of Transportation State Highway Administration (MDOT SHA)** Phone: **410.545.8813** Project Manager: **Eric Marabello** Phone: **410.545.8770** Email: **emarabello@sha.state.md.us**	**05/2001**	**11/2008** **(7 months ahead of schedule)**	**$31,189**	**$31,745** **(Overage due to removal/disposal of discovered hazard material)**	**$1,718**

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. Project/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.

SCOPE AND COMPLEXITY SIMILARITIES

- **Interchange modifications for safety and operations**
- **Eliminated deficient weave operations between loop ramps similar to the I-64 Exit 118 improvements**
- **Dual lane departure (choice lane and aux lane) exit similar to the proposed US 29 NB exit to Fontaine Avenue**
- **Existing drainage system rehabilitations / retrofits**
- **Innovative traffic control/MOT solutions and design**

Design Work Office Location: Hunt Valley, Maryland

WM's Role: Prime Designer

Project Description

MDOT SHA retained **Wallace Montgomery** (**WM**) to provide engineering design services for the I-95/I-495 Capital Beltway with Maryland Route 5 (Branch Avenue) interchange modification and adjoining Beltway safety and resurfacing improvements through the limits of the interchange. The project limits along MD Route 5 ranged from north of Auth Road through the I-95/I-495 Capital Beltway interchange to Manchester Drive. The project scope included improvements along 1¾ miles of MD 5 and the I-95/I-495 Capital Beltway, as well as 2¼ miles of MD 5/Capital Beltway interchange ramps.

The design addressed the projected congestion along the roadway network system that serviced the adjacent Branch Avenue Metrorail Station. The project also addressed the increasing transit-oriented development, and improved traffic operations along the network's Capital Beltway and MD 5, which is a major commuter route from Southern Maryland to Andrews Air Force Base and Washington DC.

The interchange modifications primary elements were a new semi-direct flyover ramp from the Beltway Inner Loop to MD 5 South and the reestablishment of a cloverleaf ramp on a new alignment from MD 5 North to the Inner Loop. These modifications eliminated existing LOS F weave operations between loop ramps along the Inner Loop and MD 5 South. The design also included a dual lane departure (choice lane and aux lane) from the Inner Loop to the new semi-direct flyover and MD 5 North and the reconstruction on a new alignment of the directional ramp from the Outer Loop to new semi-direct flyover for improved entry onto MD 5 South. The realigned directional and new flyover ramps includes five bridges, three mechanically stabilized earth (MSE) retaining walls and a segment of reinforced soil slopes.

WM provided design services for post-planning studies through advertisement, and they included highway, hydrology and hydraulics-drainage-stormwater management (SWM)-erosion sediment control, structural and landscaping design; interchange modification report (IMR) and design exception documentation; NEPA reevaluations; transportation management plan and temporary traffic control/construction staging development; environmental permitting (wetlands/streams); geotechnical and traffic (signals, lighting, ITS, signing, markings) engineering; construction plans and right-of-way plats preparation; storm drain condition inspections; and noise analysis. ***The Project was a 2009 Maryland Quality Initiative MDOT SHA Modal Over $5M Award finalist and received an ACEC-Maryland Honor Award in Transportation.***

Challenges and Solutions

Interchange Design: **WM** provided geometric designs and refinements to the interchange ramps by using interchange traffic analysis and operational assessments, constructability reviews, and the common-sense engineering application of AASHTO design criteria. We documented this process with our development of the final IMR. We avoided impacting the existing noise barrier by securing a design exception for a reduced outside shoulder width at the dual lane departure exit from the Inner Loop.

Drainage-SWM Design: We designed combination open and closed drainage systems, along with SWM facilities, to address both water quality and quantity control of runoff. We designed a SWM wet pond facility in accordance with NRCS Conservation Practice Code 378. We prepared details/special provisions for the slip lining rehabilitation and the partial reconstruction of an existing 35-year-old, 670' long, 40' deep, 42" AACMP cross culvert storm drain system of I-95/I-495.

Environmental Permitting: **WM** prepared a joint permit (MDE and USACE) for nontidal wetlands/waterways impacts. To secure final approvals, we coordinated avoidance/minimization measures that included using a closed section roadway along the directional ramp from the Inner Loop to MD 5 North/Auth Road and reinforced soil slopes along the realigned directional ramp from the Outer Loop to MD 5 South to eliminate encroaching embankments from stream waterways.

Similar Risks Mitigated

Securing and Maintaining Public Support – **WM** helped MDOT SHA to develop press releases exhibits and advance notice-alternative avoidance routes ground-mounted signing for an extensive public outreach campaign for the 14-hour weekend closures/detours of MD 5 and the Beltway. We coordinated and selected the weekends for the closures to not impact Washington DC events such as the Cherry Blossom Festival and Nationals opening day.

Delays from Utility Relocations – **WM**'s design needed to avoid/minimize impacts to a WSSC water transmission main and other utility facilities along MD 5. We used a proactive partnering/risk management approach that facilitated timely communication and collaboration, and efficiently resolved design issues. **WM** held multiple coordination meetings with WSSC and other utility owners to refine the new flyover ramp's crossing of MD 5 and its connection to MD 5 South. We developed the contract provisions for the ramp's road embankment with MSE walls crossing of the water main.

Safety of Roadway Users/Workers – This project fostered MDOT SHA's TMP initiative to expedite construction efficiently, safely, and with fewer delays to the traveling public. **The construction phase finished seven months early**. **WM** provided traffic analysis of 14-hour weekend closures/detours of MD 5 and I-95/I-495 for the steel erection of the new flyover ramp curved girder bridge crossings and accordingly developed contract documents for the closures/detours. We also developed contract documents to utilize temporary positive barrier for all work along the Beltway. This Project initiated the MDOT SHA policy requiring work along high speed facilities to be performed behind temporary positive barrier.

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-64 at US 15 DDI Interchange Design-Build** Location: **Zion Crossroads, VA**	Name: **Corman Construction**	Name of Client: **VDOT Culpeper District** Phone: **540.829.7512** Project Manager: **John Lynch, PE** **(Previously Laurence Farrell, PE)** Phone: **540.829.7512** Email: **john.lynch@vdot.virginia.gov**	**12/2012**	**04/2014**	**$6,883**	**$6,883**	**$87**

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. Project/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.

Design Work Office Location: Vienna, Virginia

WM's Role: Subconsultant DDI Designer

Project Description

Wallace Montgomery (**WM**) was an integral part of the Corman Construction Design-Build team on this innovative interchange design at I-64 and US Route 15 (Zion Crossroads) in Louisa and Fluvanna counties, Virginia. The Zion Crossroads diverging diamond interchange (DDI), which was completed in the Spring of 2014, was the first DDI opened in the Commonwealth. **WM** joined the team as a subject matter expert on innovative interchanges; making significant contributions during the bid and design phases by improving the DDI's operations and safety while reducing construction costs. **WM** provided DDI geometric design guidance and final layout reviews; IMR assistance; traffic engineering and analysis; TMP preparation (including TTC plans, traffic operations and public outreach plan); and construction phase reviews.

Challenges and Solutions

Interchange Design: The existing interchange configuration was a conventional diamond with traffic signals along US 15 at the ramps. County master plans identified Zion Crossroads as a high-growth area, and analyses showed that this growth, including substantial truck volumes, would cause the ramps at the existing interchange to fail in five years. *Safety* – The DDI reduced 26 crossing path conflicts to 14 conflicts. The DDI also maintained the existing structures over I-64. Offset turn lanes eliminated path overlap between trucks making turns side-by-side. Lowering operating speeds through the interchange has reduced severe crashes by 75 percent. *Minimized Impacts and Enhanced Mobility* – VDOT's DDI concept effectively addressed safety and capacity. However, **WM** developed an ATC that facilitated a smaller interchange footprint and provided additional capacity through the interchange at a lower cost. We presented the proposed enhancements, updated traffic analysis, and provided references for DDI best practices for the revised IMR. We worked with VDOT to secure FHWA approval.

Traffic Analysis: **WM** performed traffic analyses by using VISSIM and Synchro on the DDI design to increase its efficiency and maximize mobility. We prepared simulations of both the existing conditions, and the proposed DDI configurations, to show the mobility improvements. **WM** also developed traffic simulations for each phase of the TTC to ensure that vehicles did not queue back onto mainline I-64 or through adjacent intersections during construction.

Transportation Management Plan (TMP): **WM** prepared the TMP for the construction of the DDI, which included extensive sequencing/staging input from the construction manager and staff. We identified "red flags," explored staging alternatives, and selected the alternative that minimized impacts to users while providing a safe work area. *TTC Alternatives* – **WM** developed three construction staging plans and evaluated which plan would minimize user impacts while maximizing safety. We analyzed an "inside-out" option that reconstructed the median before the ramps and an "outside-in" option that calls for completing the widening first.

We also developed an option that closed one bridge at a time, which completed the work in halves. The "outside-in" option provided the best opportunity for completing the work quickly and safely. With the staging of the DDI crossovers, **WM** and construction staff developed two detailed work plans to shift traffic from the conventional diamond ramps to the diverging diamond. One plan used a pilot car and flaggers to move traffic through the corridor while establishing the new signing and temporary striping. The other plan used temporary closures of the crossovers with local detours and flaggers. We selected the second option, since it caused the least amount of delay and avoided backups onto I-64.

WM completed barrier analyses for each stage of work for the I-64 mainline, each ramp, and US 15. We requested a reduced work zone speed limit for both directions on US 15. This approach improved worker safety and also conditioned drivers to the lower speeds required to negotiate the DDI. The lower speeds developed queues – a fact that we included in our final report. **WM** also developed an incident management plan with detours and signing plans to mitigate potential accidents on I-64 and US 15. We coordinated the plan with the VDOT NWRO, as well as the local Zion Crossroads yard.

Similar Risks Mitigated

Securing and Maintaining Public Support – Local communities and businesses were skeptical about the DDI's potential benefits and impacts. The DBT and VDOT reached out to the surrounding residents, business owners, and distribution centers to gather feedback. We recognized that procuring public acceptance would be challenging. We presented head-to-head simulation videos about negotiating the DDI in order to alleviate the community's concerns and build consensus.

Delays from Utility Relocations – The DDI work included potential impacts to gas, water, fiber, electric, and CCTV services. The DBT confirmed the location of underground utilities before initiating any excavations. We collaborated with the utility owners to make final determination that the utilities could remain in place as-is. We coordinated early to ensure that power feeds to new signals were not delayed. The DBT coordinated with VDOT to maintain an existing CCTV camera throughout the work and after completion, which is like the camera located at Exit 118.

Safety of Roadway Users/Workers – The Zion Crossroads project used three primary phases of construction with a single major traffic shift from the existing diamond to the DDI conditions. Reducing the posted speed from 45 mph to 35 mph on US 15 facilitated using barrels on US 15, which provided easy access to all work areas and accustomed drivers to the lower speeds of the final DDI. The DBT used multiple PCMS along I-64, US 250, and US 15 that could be changed "on the fly" to notify stakeholders about incidents. The DBT coordinated closely with the NWRO TOC. We didn't want to impact access to adjacent intersections at the DDI's limit of work near the US 15/US 250 intersection. So we secured approval for slightly shorter tapers than the tapers shown in the *Work Area Protection Manual* to keep the work zone entirely on the north side of US 250. This trade-off alleviated driver confusion at the intersection, and was continually monitored.

SCOPE AND COMPLEXITY SIMILARITIES

- **VDOT design-build delivery**
- **Conversion of diamond interchange to DDI**
- **Interchange modifications to improvement safety and operations, including IMR development**
- **Design removes conflict points, enhancing both safety and operations**
- **Innovative TTC solutions and very detailed TMP**
- **Multiple workshops to gather feedback from and educate a skeptical public**
- **Coordination with adjacent signalized intersections**

2015 DBIA National Award of Merit (Transportation
2015 DBIA MAR Design-Build Merit Award (Mid-Atlantic)
2014-2015 ACEC Engineering Excellence Honor Award
2014 VDOT Culpeper District Construction Project of the Year