Statement of Qualifications

I-81 BRIDGE REPLACEMENT
AT EXIT 114

A DESIGN-BUILD PROJECT
Montgomery County / Town of Christiansburg, Virginia

FROM 0.381 MI. SOUTH OF CHRISTIANSBURG SCL TO 0.510 MI. NORTH OF CHRISTIANSBURG SCL

State Project No. 0081-154-733, P101, R201, C501, B601, B616
Federal Project No. IM-081-2(992)
Contract ID No. C00093074DB96
3.2 LETTER OF SUBMITTAL
September 6, 2017

Stephen D. Kindy, P.E.
Alternative Project Delivery Division
Virginia Department of Transportation
1401 East Broad Street
Richmond, VA 23219

Re: REQUEST FOR QUALIFICATIONS | A DESIGN-BUILD PROJECT | I-81 BRIDGE REPLACEMENT AT EXIT 114 | From: 0.381 Mi. South of Christiansburg SCL To: 0.510 Mi. North of Christiansburg SCL | Montgomery County / Town of Christiansburg, Virginia | State Project No.: 0081-154-733, P101, R201, C501, B601, B616 | Federal Project No.: IM-081-2(992) | Contract ID Number: C00093074DB96

Dear Mr. Kindy,

Branch Civil, Inc. (Branch), as the Offeror, submits to the Virginia Department of Transportation (VDOT) this Letter of Submittal and accompanying Statement of Qualifications in response to the Request for Qualifications dated July 12, 2017 and Addendum No. 1 dated August 23, 2017 for the above-referenced project. For this pursuit, Branch has partnered with STV Incorporated dba STV Group Incorporated (STV) to furnish a product that exceeds design, cost, and schedule expectations.

3.2.1 Full legal name and address of the Offeror:
Branch Civil, Inc. | 442 Rutherford Ave, NE, Roanoke, VA 24016

3.2.2 Point of Contact for the Offeror:
Mr. Jason Hoyle, Vice President of Design-Build/Major Projects
Address: 442 Rutherford Ave, NE, Roanoke, VA 24016
Tel: (540) 982-1678 | Fax: (540) 982-4217 | Email: jason.hoyle@branchcivil.com

3.2.3 Principal Officer of the Offeror:
Mr. Patrick Bartorillo, President
Address: 442 Rutherford Ave, NE, Roanoke, VA 24016
Tel: (540) 982-1678 | Fax: (540) 982-4217 | Email: patrick.bartorillo@branchcivil.com

3.2.4 Structure of the Offeror: Branch is a registered corporation in the Commonwealth of Virginia. Branch will take full financial responsibility for the project and has no known liability limitations. Branch will provide a single 100% performance bond and single 100% payment bond.

3.2.5 Lead Contractor: Branch Civil, Inc. | Lead Designer: STV Incorporated dba STV Group Incorporated

3.2.6 Affiliated and/or Subsidiary Companies Table (Attachment 3.2.6) is in the Appendix.

3.2.7 Executed Certifications Regarding Debarment (Attachments 3.2.7(a) and 3.2.7(b)) are in the Appendix.

3.2.8 VDOT Prequalification: Branch’s Vendor ID is B319; status is Active. See Appendix for evidence.

3.2.9 Surety Letter is in the Appendix. Branch is capable of obtaining a performance and payment bond.

3.2.10 SCC and DPOR registration (Attachment 3.2.10) and supporting documentation is in the Appendix.

3.2.11 DBE Participation Goal: Branch is committed to achieving an eight percent (8%) DBE participation goal for the entire value of the contract.

Branch and STV are well-versed and respected within the Heavy Civil Construction industry, specifically regarding Design-Build projects. Our team eagerly anticipates further proposal instructions.

Respectfully Submitted,

Patrick K. Bartorillo, President
3.3 OFFEROR’S TEAM STRUCTURE
3.3 OFFEROR’S TEAM STRUCTURE

Branch Civil, Inc. (Branch) has assembled a team of industry veterans who have experience designing and building solutions to meet the demands of this project’s scope—combining the skills and experience of our team-member firms, resources, and personnel. Our Design-Build (D-B) team offers the local resources and capacity, as well as the certifications and qualifications, to successfully complete the design and construction of this challenging project. STV Incorporated (STV), serving as the lead design firm, will provide all required professional design and engineering services in support of the construction approach and schedule. Smith-Rowe, LLC (Smith-Rowe) will serve as a major dedicated bridge subcontractor, bringing a depth of experience with interstate bridge replacement projects, including D-B bridge replacements.

As the offeror, Branch will take financial responsibility for project completion and manage the entire project team, supervising design and construction, and performing major elements of the construction work. Our team composition and organization is conveyed through the organizational chart included on page 7.

The Branch team is comprised of industry-leading interstate bridge designers and contractors who understand the project’s challenges and complexities, as well as the procedures and expectations of VDOT. Each key participant has faced similar challenges on projects of similar complexity, so we know what it takes to deliver creative and innovative design and construction solutions which minimize disruptions to local communities and the traveling public, while maximizing safety and the value of every dollar invested.

As described below, each participant on this team is highly qualified to provide the services specific to their scopes of work.

**Branch** is committed to continuing its 75-year tradition of building enduring infrastructure projects in the Mid-Atlantic and Southeastern United States through D-B civil construction. Branch is an employee-owned company with corporate headquarters located in Roanoke, VA within 40 miles of the Exit 114 project, and regional offices in Manassas and Virginia Beach VA. As one of the largest Virginia-based contractors, Branch’s experience includes design management, ROW acquisition, utility relocation and coordination, and environmental permit acquisition and monitoring on numerous D-B and Public-Private Transportation Act (PPTA) projects.

Branch has completed over $325 million in traditional D-B/PPTA and design-bid-build work in the Salem District. Our established relationships with numerous project stakeholders, understanding of VDOT procedures and expectations, and availability of local resources will allow us to mobilize quickly and expedite project delivery. Branch will apply D-B management lessons learned from the I-95 Southern Terminus Extension, scheduled to be completed nine months early, to expedite delivery of the Exit 114 project.

**STV** brings more than 105 years of experience providing well-conceived and cost-effective engineering design services for bridge and roadway projects. STV is currently completing D-B services to VDOT as the Lead Designer on the I-581/Valley View Boulevard Interchange Phase II Design-Build in Roanoke, VA and the GRTC Pulse BRT Design-Build in Richmond, VA.

STV has provided services to VDOT on a continuous basis since 1985. They rank among the premier D-B consultants in the industry, and have earned a reputation for providing highly innovative design services for D-B transportation projects. As evidence, STV was awarded the 2015 Design-Build Project/Team Award in the Transportation category by the Design-Build Institute of America for the I-485/I-85 turbine interchange in Charlotte, NC. The D-B process afforded STV and the contractor with the ability to propose an alternative technical concept for a modified interchange, saving $30 million while providing safety enhancements.
Smith-Rowe is an established bridge contractor headquartered in Mount Airy, NC, only 60 miles from the project site. Founded in 1983, they have constructed hundreds of bridges and culverts in Virginia and North Carolina, and possess an excellent reputation for high-quality, on-time bridge construction. Smith-Rowe’s bridge experience includes the 952-foot-long Route 623 Bridge over the New River in Pembroke, VA, and they have completed 10 D-B bridge projects with STV.

To enhance D-B delivery and maximize DBE/SWaM participation, Branch has added the following firms:

<table>
<thead>
<tr>
<th>Firm</th>
<th>Role</th>
<th>Experience/Benefits</th>
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<tbody>
<tr>
<td><strong>Subcontractors</strong></td>
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<tr>
<td>Smith-Rowe, LLC</td>
<td>Bridge/Retaining Wall Construction</td>
<td>• Over 450 regional bridges/culverts built&lt;br&gt;• Over 250 staff and 35 cranes to self perform work</td>
</tr>
<tr>
<td>McDonough Bolyard Peck, Inc.</td>
<td>QC Manager/QC Inspection</td>
<td>• Currently providing inspection on Southgate Drive Interchange&lt;br&gt;• Broad QC experience with Salem District D-B</td>
</tr>
<tr>
<td>ECS Mid-Atlantic, LLC</td>
<td>QC Lab</td>
<td>• Extensive testing experience on VDOT projects&lt;br&gt;• AASHTO Materials Reference Lab certified</td>
</tr>
<tr>
<td>NXL, Inc. (SWaM)</td>
<td>Quality Assurance</td>
<td>• Independent D-B QA experience for VDOT&lt;br&gt;• Worked with Branch on D-B Route 3 Widening&lt;br&gt;• QAM on I-581/Valley View Blvd. Interchange D-B with STV</td>
</tr>
</tbody>
</table>

| **Subconsultants**                  |                       |                                                                                     |
| Bowman Consulting Group, Ltd.       | Survey/SUE/ROW/Utilities | • D-B experience with VDOT projects<br>• Project experience in the Salem District |
| EEE Consulting, Inc. (SWaM)         | Environmental/Permitting | • Worked with Branch on Route 58 projects<br>• Developed Phase I study of I-81 project site |
| Endesco, Inc. (DBE)                 | Drainage/Hydraulics/E&SC | • D-B experience with VDOT projects<br>• VDOT I-95 Replacement Bridges over Meherrin River with STV |
| Schnabel Engineering, LLC           | Geotechnical/QA Lab   | • Significant VDOT experience in Salem District<br>• Leading practitioner in karst geology<br>• AASHTO Materials Reference Lab certified |
| Seventh Point (SWaM)                | Public Relations      | • Stakeholder/community/media relations<br>• VDOT Gilmerton Bridge Replacement experience |

3.3.1 KEY PERSONNEL

Below we have provided brief qualifications for the required key personnel as outlined in the RFQ. Key Personnel Resume Forms (Attachment 3.3.1) for each are included in the Appendix. The Branch team acknowledges that job duties and responsibilities of Key Personnel shall not be delegated to others for the contract’s duration, and all proposed personnel are currently employed full time by their respective firms.

**Design-Build Project Manager (DBPM) – Jason Hoyle** (Branch) Jason will oversee the overall project, including the design, construction, quality management, contract administration and other services required.
by the Contract Documents, including procuring and furnishing all materials, equipment, services, and labor reasonably inferable from the Contract Documents in a timely manner.

With over 22 years of construction experience, his interstate bridge replacement projects include the Greensboro Eastern Loop (I-840), I-73/PTIA Design-Build, and Macy Grove Road Design-Build (I-40 Business). **His D-B experience will be integral in facilitating team partnering to make sure that appropriate and consistent communication is maintained among all parties.**

He will be responsible for meeting the Design-Builder’s project obligations under the contract, providing answers to questions/inquiries relevant to the project, overseeing the avoidance/resolution of disputes, and coordinating public outreach/meetings. The Quality Assurance Manager, Design Manager, Construction Design Coordinator, Construction Manager, Safety Manager, ROW Manager, Lead Utility Coordinator, and Public Relations Manager will all report directly to Jason.

**Quality Assurance Manager (QAM) – Joe Hamed, P.E. (NXL)** will serve as the single point of responsibility for all QA services and will act independently of the design and construction teams, reporting directly to the Design-Build Project Manager. He will be responsible for QA inspection and testing of all materials used and work performed on the project, including the contractor’s QC program.

Mr. Hamed has more than 20 years of experience in the transportation construction industry. As a former contractor and VDOT Area Construction Engineer, Mr. Hamed has a broad construction management background with extensive experience in contract management, constructability review, claims prevention and analysis, and QA for bridge and roadway projects across the Commonwealth. He recently performed a similar role on VDOT’s I-581/Valley View Interchange Phase II D-B in which he was the QAM and led a team of QA Inspectors throughout the project duration, working with STV and others.

**Design Manager (DM) – Derek Overstreet, P.E. (STV)** will coordinate all design activities with each design discipline lead to make sure the design is in conformance with the Contract Documents, and will establish and oversee the design QA/QC plan. Derek understands the collaboration required to maximize the benefits of the D-B process, and is currently Deputy Design Manager on VDOT’s I-581/ Valley View Interchange Phase II D-B project. **He is well-versed in all aspects of D-B delivery, including design concept validation, constructability reviews, risk management, and project controls.**

As Engineering Director for STV, Derek is responsible for delivery of all bridge and structure related projects throughout Virginia, overseeing a staff of seven bridge engineers, technicians, and support personnel. He is serving as the Project Manager for three bridge replacement projects in the Salem District, including the roadway approaches, under a VDOT Limited Services Term Contract for New Design Plans of Highway Structures and Bridges in the Salem District. In addition, Derek has 14 years of design management experience overseeing bridge and structure related projects, including the replacement and widening of interstate bridges and projects in karst topography.
Construction Manager (CM) – John Ralston (Branch) will manage on-site personnel, including Project Controls, QC Manager, QC Inspection, Bridge and Roadway Superintendents, as well as field staff, including scheduling, safety, environmental compliance, utilities, and MOT.  

He will be on site full time for the duration of construction operations, and will be responsible for managing the construction process, to include all QC activities, making sure that the materials used and work performed meet contract requirements and the “approved for construction” plans and specifications.

With 18 years of experience in the field, John brings VDOT project management experience including the Southgate Drive Interchange project and Route 114 Widening in the Salem District, as well as the I-81 Bridge Replacement in Marion.  John’s past VDOT work experience includes focusing on environmental compliance, specifically within the Salem District.  Relevant VDOT projects include the Smart Road in Blacksburg (both bridge and road construction), Route 460 Christiansburg Bypass (three projects), Memorial Bridge in Radford, Route 460 Bridge over New River in Pearisburg, and Route 100 Widening in Pulaski County.  John will play a key role, along with the Construction Design Coordinator and DM, in providing constructability reviews, utility coordination, ROW acquisition, and maintenance of traffic (MOT).  He will work with STV to make sure the project adheres to all environmental requirements, and with the Safety Manager and the Construction QC Manager.  He will coordinate with the DM during construction to provide accurate and timely issuance and review of RFIs and shop drawings, as well as preparation of as-builts and plan revisions.

Value Added Positions
As indicated on the organizational chart, the following value-added positions are integral to our approach to D-B delivery of the I-81 Bridge Replacement at Exit 114 project:

Construction Design Coordinator – Melissa Sowers (Branch) is currently serving the Salem District on Exit 150 as the Project Manager with prior experience on the Route 58 Laurel Fork and Hillsville Bypass projects.  She will work with STV on constructability and assist in eliminating potential field conflicts and tracking design progress.  Melissa will report to the DBPM, and leverage her experience working on projects in the Salem District to support the timely review of plan submissions and advance construction activities.

Traffic Management Task Force – This group will consist of VDOT, Branch, STV project staff, and third-party stakeholders.  The Task Force will meet routinely, at least monthly, and review MOT to make sure traffic safety and efficiency are optimized.

Safety Manager – Danny Minnix (Branch) has over 20 years of experience in safety management and will report to the DBPM.  Danny will confirm compliance with all applicable safety regulations and has sole responsibility of project-wide safety.  Danny has experience with large-scale heavy civil safety program development and management, and is director of safety and risk at Branch.

Public Relations Manager – Mike Carosi (Seventh Point) has over 21 years of experience leading outreach on major transportation projects in Virginia and providing robust public affairs, community outreach, marketing, advertising, and strategic public communications programs.  Mike is currently serving in a similar role on Branch’s Military Highway CFI Design-Build project for VDOT and will report to the DBPM.

As an added value, all team members on the organizational chart have D-B experience.

3.3.2 TEAM ORGANIZATION

Design & Construction Coordination

Our D-B philosophy does not consider design and construction as isolated functions. Early D-B integration enables and enhances constructability because design and construction personnel work together from project
inception. *The team’s job is to join the design groups with their construction counterparts, expedite information exchanges and problem solving, and participate in design reviews – an approach that maximizes schedule and cost efficiencies and minimizes construction-related community impacts.*

Consistent and open communication is key to achieving project goals. We will conduct regular monthly partnering meetings with the design, construction, quality assurance, and VDOT managers, to discuss project progress. A standard agenda will be established and followed throughout the project’s duration and modified as needed to emphasize special activities. Key items will be discussed including: status of plans, schedule, materials, environmental/permitting, ROW, safety, and community interface. One focus of these partnering meetings is quality, utilizing the D-B expertise of the QAM to make sure that quality is sustained throughout the project’s duration. To reinforce quality and proceed with action items, minutes will be promptly distributed and any issues that are not resolved during the meeting will be tracked until resolution is confirmed.

*The Branch team is organized to integrate design, procurement, construction inspection, testing, and safety certification into one cohesive group with the single point of contact for VDOT being DBPM Jason Hoyle.* Jason has the authority to represent and make decisions for Branch, overseeing the performance of the D-B team. Our CM, John Ralston, will report to Jason, overseeing construction execution with the authority to make all day-to-day decisions to keep the project moving.

Our DM, Derek Overstreet, P.E., will also report to the DBPM, and will manage the design and oversee all design discipline leads and subconsultants to develop timely design deliverables in support of the construction approach and schedule. Construction Design Coordinator, Melissa Sowers, will act as a liaison between design and construction to make sure the team is working in concert to achieve project goals.

**Independent QA/QC**

To maintain a clear separation between QA and QC functions, NXL will be responsible for the independent QA inspection and testing. From their office in Christiansburg, NXL offers services for various transportation and infrastructure projects, including bridges and highways. NXL provided independent QA for the VDOT I-581/ Valley View Interchange Phase II D-B project. **QA services were delivered in accordance with VDOT requirements and NXL acted as a liaison between VDOT and the contractor’s executive staff on quality issues.** NXL also provided QA services for Branch on the Route 3 Widening D-B project.

Leading the QA team, Joe Hamed, P.E., NXL’s QAM, will confirm the results of QC efforts by performing tests and inspections for verification using a separate and independent testing laboratory. He will make sure that any non-compliant work is documented and corrected using an approved method to facilitate acceptance by VDOT and FHWA. Joe will review, comment on, and approve the monthly invoices to VDOT. He will plan and facilitate preparatory inspection meetings for major elements with QA, QC, and Branch staff to review contract requirements pertaining to the construction, inspection, and acceptance of the work.
Offeror’s Team Structure

### Executive Committee
- Patrick Bertolino (Branch)
- E. Richard Capers, Jr. (STV)

### Branch
- **Design-Build Team**
  - Senior Project Manager: Jason Hoyle (Branch)
  - Project Manager: E. Richard Capps, Jr. (STV)
  - Design Manager: Derek Overstreet, PE (STV)
  - Construction Manager: John Rakston (Branch)
  - Safety Manager: Danny Minnix (Branch)
  - Quality Assurance Manager: Joe Hamed, PE (NXL)
  - Construction Design Coordinator: Melissa Sowers (Branch)
  - Public Relations Manager: Mike Carosi (Seventh Point)
  - Construction Manager: Joe Hamed, PE (NXL)
  - Lead Utility Coordinator: Mike Carosi (Seventh Point)
  - Construction QC Manager: Frank Williams (MBP)
  - MOS/TRAFFIC ANALYST: Ron Briggs, PE (STV)
  - PROJECT ENGINEER: Michael Ishihara (Branch)
  - TRAFFIC ANALYSIS/ITS: Suresh Karre, PE, PTOE (STV)
  - E&S CONTROL REVIEWER: Kevin Juang, PE (Endesco)
  - CONSTRUCTION ENGINEER: Jessica Ishihara (Branch)
  - BRIDGE SUPERINTENDENT: Mike Gilliam (Smith-Rowe)

### Third Party Utilities
- **Design QA Manager**: Mike Hooshangi, PE (STV)
- **Bridge Engineer**: Ron Briggs, PE (STV)
- **Traffic Analysis/ITS**: Suresh Karre, PE, PTOE (STV)

### Key Personnel
- **Value Added Personnel**
  - Mike Hooshangi, PE (STV)
  - E. Richard Capps, Jr. (STV)
  - Derek Overstreet, PE (STV)
  - Melissa Sowers (Branch)
  - Mike Carosi (Seventh Point)
  - Joe Hamed, PE (NXL)

### Third Party Stakeholders
- Montgomery County/Motorists/Public Schools/Sheriff/Public Utilities/Residents/Property Owners, Town of Christiansburg, RU, VT, Carillion, Humane Society, Assemblies of God, State Police Barracks

### Permitting Agencies
- US Army Corps of Engineers, Virginia Department of Environmental Quality, VDOT, Branch, STV, Third Party Stakeholders

### Traffic Management Agencies
- VDOT ITS, American Electric Power, Citizens Telephone Cooperative, Lumos Network, Town of Christiansburg, Verizon

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The Branch/STV Design-Build Team Key Personnel and all additional team members have prior Design-Build experience.
3.4 EXPERIENCE OF OFFEROR’S TEAM
3.4 EXPERIENCE OF OFFEROR’S TEAM

Depth of team experience is more than simply proposing firms who have designed and constructed interstate bridges. Experience that will truly benefit VDOT is exemplified in a team with D-B capability, an understanding of VDOT procedures and expectations, and established relationships.

Branch has completed more than $600 million in D-B projects and over $325 million in D-B/PPTA and traditional design-bid-build work in the Salem District. Using resources and lessons learned throughout the District, Branch has led the development, design, and construction improvements to the multi-phased expansion of the US Route 58 Corridor since the early 2000’s, and is currently the Prime Contractor for the $39.6 million Southgate Drive Interchange project. With company headquarters located within 40 miles of the site, Branch is ready to support the I-81 Bridge Replace at Exit 114 project with over 125 local, qualified staff. **Branch has established relationships with VDOT, stakeholders, and review agencies through work performed for the VDOT Salem District**, including the following:

- US Route 58 Meadows of Dan Bypass Design-Build ($19 million)
- US Route 58 Hillsville Bypass Design-Build ($83 million)
- US Route 58 Laurel Fork Design-Build ($119 million)
- Southgate Drive Interchange ($39.6 million)
- I-81 Exit 150 Troutville, Botetourt County ($18.1 million)
- Route 460 Interchange, Christiansburg ($55.8 million)
- Route 460 Interchange, Blacksburg ($54.6 million)

STV ranks among the premier D-B consultants in the industry, and their VA D-B bridge staff, including Design Manager, Derek Overstreet, P.E, all have both bridge design and bridge inspection experience. This experience will help expedite project completion in the event that the existing structures require emergency repairs prior to being taken out of service.

As Lead Designer, STV will work with all project stakeholders; design, construction, VDOT, third parties, etc., to develop designs which support stakeholder goals for the project while meeting the demands of the construction approach and schedule. **STV is currently delivering D-B services to VDOT as Lead Designer on the GRTC Pulse BRT in Richmond, which features complex MOT along a 7.6-mile route through high-density areas and the I-581/Valley View Boulevard Interchange Phase II in Roanoke.** Other VDOT similar bridge projects include:
Experience of Offeror’s Team

• I-95 Bridge Replacement over Meherrin River ($22.5 million)
• I-264 Bridge Widening over Norfolk Southern ($5.1 million)
• Route 43 Bridge Replacement over Big Otter River ($2.3 million)
• Route 634 Bridge Replacement over Roanoke River ($8.3 million)
• Route 621 Bridge Replacement over Ivy Creek ($1.2 million)
• Route 1 Bridge Replacement over CSXT, and WMATA ($11 million)

Smith-Rowe and STV have a long history delivering D-B bridge projects together including the $136 million I-85 over the Yadkin River featuring STV as the Lead Designer and Smith-Rowe performing bridge demolition and constructing noise walls. In fact, Smith-Rowe and STV have completed 10 D-B bridge projects together.

Smith-Rowe has constructed over 100 interstate and major US Route bridge projects, including the 952-foot-long SR 623 Bridge over the New River in Pembroke, only 30 minutes from the I-81 Bridge Replace at Exit 114 project. Smith-Rowe’s extensive bridge rehabilitation experience provides insights to quickly and safely demolish and replace the aging bridges on this project. Similar Smith-Rowe interstate and US Route bridges include:

• I-295 over US 401 ($13 million)
• South Main Street over US 52 ($17 million)
• I-74 Bridges Montgomery and Richmond counties, NC ($10.2 million)
• Harper Road over I-40 ($8 million)
• I-140 over CSX and US 74/76 ($6 million)

3.4.1 WORK HISTORY FORMS

The Work History Forms, Attachments 3.4.1 (a) and (b), are included in the Appendix. Below is a snapshot of similar features to the I-81 Bridge Replace at Exit 114 project.

<table>
<thead>
<tr>
<th>Project Experience</th>
<th>Limited Access</th>
<th>Staged Const.</th>
<th>Risk Factors</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>MOT</td>
</tr>
<tr>
<td>Southgate Drive Interchange</td>
<td>•</td>
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<tr>
<td>US Route 58, Phase II, Hillsville Bypass</td>
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<td>I-64 over Jackson River Bridge Replacement</td>
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<td>VDOT I-581 / Valley View Interchange</td>
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<tr>
<td>VDOT I-95 over Meherrin River Bridge</td>
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<tr>
<td>NCDOT SR 1727 over Ararat River</td>
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3.5 PROJECT RISKS
3.5 PROJECT RISKS

The Branch team will employ the CMAA approach to risk management through the use of a risk register which includes a formal list of identified risks, potential impacts, and mitigation strategies. Our risk management process has already begun, and will continue throughout design and construction employing the following five-step risk management approach:

1. **Identify** – name risks, determine cause and effect, and categorize
2. **Assess** – assign probability of occurrence, severity of impact, and determine response
3. **Analyze** – quantify risk severity, determine risk exposure, establish risk tolerance level, and determine risk contingency (applicable during preliminary design and pricing)
4. **Manage** – define response plans, establish risk ownership, and manage response (after NTP)
5. **Monitor** – monitor/review/update risks, monitor response plans, update risk exposure, analyze trends, and produce reports (after NTP, during design, during construction)

We have reviewed the available project information, visited the site, and discussed the major risks. With the approach of risk being defined as an issue that may impact the safety of the traveling public and construction staff, the project schedule, or the budget, the team has identified the following three most critical risks facing the project:

**RISK #1 – MAINTAINING TRAFFIC**

*Why this Risk is Critical*

Maintenance of Traffic (MOT) during construction is critical due to the high volume of truck and other traffic along I-81 as well as Route 8. Traffic must be maintained and disturbance minimized to promote efficient and safe road operations during construction.

The conceptual plans call for replacing the existing bridges with two separate bridges consisting of a 4-lane typical section (two 12-foot lanes in each direction) with 12-foot outside shoulders and 6-foot inside shoulders.

With regard to traffic, the following design issues are significant:

- Per the most recent (2016) VDOT Annual Average Daily Traffic (AADT) estimates, the segment of I-81 near Exit 114 carries approximately 52,000 vehicles per day—these volumes included nearly 25% truck traffic
- There is an approximately 4-foot grade raise of I-81 at the proposed bridges

![Maintaining trucking routes on I-81 and Route 8 is critical to the region’s economic development.](image-url)
**Risk Impact**
Reducing travel lanes will severely impact traffic on I-81 during peak hours, and it is anticipated that any reduction in travel lanes will be unacceptable. It is also anticipated that traffic on Route 8 will need to be maintained during construction. Lane restrictions, closures, or narrowing of lanes increases the hazards associated with the MOT installation to both workers and the traveling public.

Bridge elevations are being raised as much as four feet to address geometric requirements, which will require temporary shoring and permanent retaining walls, further complicating the construction phasing and temporary road configurations. The concerns associated with the MOT risk include:

- Inattentive motorists entering the construction work zone
- Shifting traffic patterns during phased construction
- Congestion during construction heightens the risk for rear-end collisions
- Construction access in and out of the I-81 median
- Navigating heavy truck traffic through the work zone

**Mitigation Strategies:**
The Branch team will incorporate lessons learned and a proven system to facilitate a broad, multi-faceted Transportation Management Plan (TMP). In order to achieve an effective MOT plan, the phasing of bridge construction will be integral. Below is a list of mitigation strategies to consider:

- Conduct an initial partnering Traffic Management Task Force (TMTF) meeting with VDOT, third parties, and the project team to review requirements and discuss traffic related issues – the TMTF will meet monthly to develop responsibilities and timelines for achieving goals for a TMP and discuss the MOT plan
- Devise a Bridge Construction Phasing Plan (initial draft shown on the following page) to minimize the number of traffic shifts and separate the work zone from travel lanes
- Make sure each Approved for Construction (AFC) work package address the MOT implications
- Incorporate advance warning signage, public notifications, and continual monitoring of MOT devices into the MOT plan
- Provide adequate separation between the traveling public and construction areas – the use of a positive protective barrier system will be incorporated into the TMP to provide separation
- Prepare a comprehensive Incident Management Plan (IMP) for our TMP to address critical issues such as a) plan for notification of the Virginia State Police/Highway Patrol as soon as a traffic incident occurs, b) potential detour routes if a complete shut-down of I-81 is necessary, c) contact local wrecker services to facilitate vehicle removal from travel lanes
- Develop a plan for safely hauling borrow material to the work zone, including possibly accessing the work zone from Route 8 minimizing construction traffic on I-81
- Minimize access points into and out of the median, clearly marking access points for construction material deliveries and scheduling deliveries during off peak hours
- Maintain protection of Route 8 from debris during demolition of existing bridges
Our team’s public relations firm, Seventh Point, will support VDOT, develop a Public Awareness Plan to communicate project work zone information, update construction sequencing and activities that may impact traffic, and provide congestion notifications to the TOC. This plan will incorporate active driver awareness measures approaching, and within, the work zone and may include:

Rumble strips | Portable changeable message signs | Radar speed signs
Law enforcement presence | Information systems

**Role of VDOT/Other Agencies**
The Branch team will manage the risks associated with MOT. VDOT’s role will be limited to posting appropriate messages through the traveler information system in cooperation with our team. We anticipate no significant role from other agencies.

**RISK #2 – KARST GEOLOGIC CONDITIONS**

*Why this Risk is Critical*
Designing and constructing bridge foundations, bridge approaches, and stormwater management facilities in karst geologic conditions are a critical risk for this project. Encountering unknown karst features during construction can impact traffic operations, budget, and schedule. Typical karst characteristics include a wide variation in rock surface elevations, very soft residual clays, and solution features in the rock such as soil, water, or air-filled voids.
Soils overlying the rock strata are typically highly plastic clays and elastic silts and have poor pavement support characteristics with high shrink-swell potential. In karst areas, the subsurface conditions must be thoroughly investigated, and the Branch team has managed similar risks through proactive geotechnical planning and engagement during design and construction. Our geotechnical engineer, Schnabel Engineering, has performed over 2,300 subsurface investigations in karst areas and written numerous publications on karst evaluations.

**Risk Impact**
The karst geologic conditions have the potential to significantly impact the design and construction of bridge foundations, MSE walls, pavements, and stormwater management structures.

**Bridge Foundations** – According to the existing bridge plans, the actual pile lengths indicate a wide variation in the rock surface elevation. For example, the pile lengths in Abutment A for the existing northbound bridge vary from 93.2 feet to 19.5 feet. For driven pile foundations, this can present installation challenges. If pinnacles exist or the rock is severely inclined, the pile can easily be damaged if it slips along the surface of the rock, which can lead to the abandonment of the pile and potential redesign of the foundation element.

**MSE Walls** – The proposed layout for the new bridges shown in the Conceptual Plans utilize MSE walls at the bridge abutments to reduce the bridge length. According to the *VDOT Manual of the Structure and Bridge Division, Volume V, Part 2, Chapter 17. File No. 17.01-7*, the use of MSE walls is prohibited in karst areas unless a design approval has been granted by the District Structure and Bridge Engineer. The presence of soft clay soils below the proposed MSE walls could cause excessive settlement and/or inadequate safety factors for stability. MSE wall settlement will also impart downdrag forces on the abutment foundation piles, which must be accurately accounted for in the foundation design.

**Pavements** – It is anticipated that the on-site soils will have low California Bearing Ratio (CBR) values and exhibit high swell. These materials will not be suitable for pavement subgrade and may need to be modified.

**Stormwater Management Facilities** – Stormwater management facilities are particularly vulnerable to collapse in karst areas because they are designed to concentrate and detain surface-water runoff and conventional methods of design and engineering may not be appropriate.

**Mitigation Strategies**
The risks associated with karst geologic conditions are best managed by an experienced and local geotechnical engineering firm executing an enhanced geotechnical investigation and laboratory testing program, selecting appropriate engineering solutions, and developing a plan to address potential design changes quickly during construction. Throughout construction, our geotechnical engineer will be integrated into the construction team and will visit the site to review earthwork and foundation operations and verify that the work is being completed consistent with the geotechnical recommendations, or if needed, modify the recommendations based on conditions encountered.

**Experienced and Local Geotechnical Engineering Firm** – Branch has teamed with Schnabel Engineering, which has a local office in Blacksburg, VA. Schnabel has performed over 2,300 subsurface investigations in karst terrains and has written numerous publications on karst evaluations including *High Capacity Micropiles in Karst, Challenges and Opportunities*.

**Enhanced Geotechnical Investigation and Laboratory Testing Program** – Since karst features are highly irregular, we plan to investigate the subsurface conditions using geophysical techniques and performing borings in excess of the minimum number of exploration points specified in the VDOT Manual of Instructions (MOI) Chapter III. Schnabel has completed over 250 highway and bridge projects in Virginia and will
provide a thorough evaluation of the geotechnical data to properly characterize the subsurface conditions, and perform calculations to determine the probability of the potential risks.

**Selecting Appropriate Engineering Solutions** – Based on the results of the geotechnical investigation, applicable solutions for the bridge foundations, bridge approaches, and stormwater management facilities will be selected based on long-term performance and risk. Locations where unsuitable soils are present will be delineated on the plans and include appropriate methods for remediation such as undercut/replacement and lime or cement stabilization. For the bridge foundations, an appropriate engineering solution might include reducing the capacity of driven steel H-piles in order to provide a redundant foundation element.

**Plan to Address Design Changes Quickly During Construction** – During installation of the deep foundations for the new bridges, STV’s bridge engineers will be present to address potential foundation design changes quickly. During construction of the I-581 / Valley View Boulevard Interchange Phase II Design-Build project in Roanoke, VA, STV’s bridge engineers redesigned the driven pile foundations on the abutments of two different bridges due to the karst geologic conditions. The design modifications were completed, reviewed by VDOT, and issued for construction within an accelerated timeframe so that bridge construction was not delayed.

**Role of VDOT/Other Agencies**
During design, VDOT’s role will be to review the results of the geotechnical investigations, recommendations, plans, and other documents. Comments identified through VDOT’s review will be incorporated into the plans and specifications issued for construction. If differing subsurface conditions are encountered during construction which require design modifications, we will submit any design changes to VDOT for review. All VDOT review comments will be incorporated into the revised construction documents issued for construction. We do not anticipate any additional effort from VDOT, or other agencies, in regard to this project risk.

**RISK #3 – EXISTING BRIDGE CONDITIONS**

**Why this Risk is Critical**
The existing bridges carrying I-81 over Route 8 were constructed in 1964 and are structurally deficient, with low sufficiency ratings of 29.4 and 35.8 for the southbound and northbound bridges respectively. The most recent structure inspection reports indicate a condition rating of 4 out of 9 for the decks and superstructures and 5 out of 9 for the substructures. Recent inspection reports indicate that 11 to 15 percent of the deck surface areas are delaminated, spalled, or patched.

The existing bridges have numerous fatigue prone details that require inspection every six months. Cracks have initiated in some of the fatigue prone details and are continuing to propagate based on our review of the structure inspection reports. Both of the bridges have inadequate vertical clearance over Route 8 and have collision damage on the bottom flanges of the exterior girders. These gouges in the tension flanges of the exterior girders (some of which are located at mid-span where the cyclic stress range is the greatest) can be the point of initiation of fatigue cracking and possibly result in fracture.

**Risk Impact**
I-81 is one of the East Coast’s major thoroughfares for trucks carrying products south and west from the northeast. Each of the bridges carry nearly two million trucks per year based on the current traffic data. This represents significant cyclic stress cycles on the existing fatigue prone details. The impact of existing bridge conditions are primarily related to safety, traffic, and schedule. It is anticipated that during the construction phase, repairs will need to be performed before the bridges are removed from service. Having to stop construction for repair work will negatively impact the project schedule. Should the bridge condition reach a point that requires a posting for weight restrictions or closure, traffic detouring onto local roads may be
necessary until emergency repairs can be completed. With each bridge carrying up to 31,400 vehicles a day, the impacts to interstate and local traffic would be significant.

Bridge repairs could have an impact on I-81 traffic, as well as along Route 8. For example, Type C Patching (full depth slab repairs) would require access to the underside of the bridge as well as to the top of the deck slab. Deck patching repairs would require lane closures, which would reduce I-81 to a single lane. This could result in significant backups, increasing the likelihood of crashes.

Existing bridge conditions may also dictate the means and methods of demolition. For example, if it is not feasible to saw-cut and remove large sections of the deck slab due to the poor condition, it may be necessary to break up the existing deck slab in-place. This process is more time consuming, and presents a risk for concrete fragments to strike vehicles passing under or adjacent to the work area.

Mitigation Strategies
With a focus on safety and minimizing impacts to motorists, our team will implement the following mitigation strategies to minimize or eliminate impacts:

Independent Bridge Safety Inspections – In order to establish a baseline assessment of the bridge conditions, we will perform an independent bridge safety inspection to identify, mark, and inventory needed repairs. During construction, we will perform independent bridge safety inspections every six months while the bridges are in service. Our inspections will be scheduled between the Department’s inspections, which are anticipated to be performed every six months, so that the bridges will be inspected every three months in order to closely monitor the conditions and identify needed repairs before they become serious issues.

Emergency Bridge Repair Plan – In anticipation that emergency bridge repairs will be required at some point, an Emergency Bridge Repair Plan, and corresponding MOT plan, will be developed as part of the construction plan. This plan would include details such as the use of High Early Strength (HES) concrete for deck patching repairs in order to minimize the duration of any required lane closures.

Self-Patrolling – During construction operations, Branch commits to patrolling the I-81 and Route 8 corridors to assess the existing structures for immediate repair needs such as spalled and/or loose concrete in the deck slab, impact damage to the bridge rails, and new collision damage to the girders that requires an emergency follow-up inspection.

Bridge Removal Plan – A Bridge Removal Plan will be developed containing details, procedures, and sequence, so that the existing bridges can be removed in a safe and controlled manner. The plan will include details and limits for debris shields and other measures required to protect the traveling public, adjacent structures, existing utilities, and other infrastructure.

Role of VDOT/Other Agencies
We anticipate VDOT will turn over the project area, including the existing bridges, to the Design-Builder at the beginning of construction operations in a safe condition, and the Design-Builder will be responsible for ordinary maintenance required to maintain a safe and reliable transportation system until final acceptance by VDOT. Should repairs be required during the course of construction, VDOT’s role will involve the prompt review and approval of all plans, specifications, and traffic control operations necessary to complete the repairs. In the event of required repairs, we also foresee coordination during construction with other agencies and project stakeholders, such as the Virginia State Police, Fire and Rescue Emergency Responders, Montgomery County, and the Town of Christiansburg. We anticipate that VDOT will continue to perform routine and/or interim bridge safety inspections until the existing bridges are removed from service and will share any findings with the Design-Builder.
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.

<table>
<thead>
<tr>
<th>Statement of Qualifications Component</th>
<th>Form (if any)</th>
<th>RFQ Cross reference</th>
<th>Included within 15-page limit?</th>
<th>SOQ Page Reference</th>
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<td>Section 3.1.2</td>
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<td>Section 3.2.3</td>
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### ATTACHMENT 3.1.2
**Project: 0081-154-733**

#### STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

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**DBE statement within Letter of Submittal** confirming Offeror is committed to achieving the required DBE goal

| | | | yes | Page 1 |
| Offeror’s Team Structure | | | | |
| Identity of and qualifications of Key Personnel | NA | Section 3.3.1 | yes | Pages 3-5 |
| Key Personnel Resume – DB Project Manager | Attachment 3.3.1 | Section 3.3.1.1 | no | Appendix |
| Key Personnel Resume – Quality Assurance Manager | Attachment 3.3.1 | Section 3.3.1.2 | no | Appendix |
| Key Personnel Resume – Design Manager | Attachment 3.3.1 | Section 3.3.1.3 | no | Appendix |
| Key Personnel Resume – Construction Manager | Attachment 3.3.1 | Section 3.3.1.4 | no | Appendix |
| Organizational chart | NA | Section 3.3.2 | yes | Page 7 |
| Organizational chart narrative | NA | Section 3.3.2 | yes | Pages 5-6 |
ATTACHMENT 3.1.2  
Project: 0081-154-733

STATEMENT OF QUALIFICATIONS CHECKLIST AND CONTENTS

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Attachment 2.10 – Acknowledgement of RFQ, Revision and/or Addenda
ATTACHMENT 2.10

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

RFQ NO.  C00093074DB96
PROJECT NO.:  0081-154-733, P101, R201, C501, B601, B616

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 12, 2017  
   (Date)

2. Cover letter of RFQ Addendum No. 1 – August 23, 2017  
   (Date)

3. Cover letter of  
   (Date)

[Signature]

8-30-17

Patrick K. Bartorillo  
PRINTED NAME

President  
TITLE
ATTACHMENT 3.2.6
State Project No. 0081-154-733

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.

<table>
<thead>
<tr>
<th>Relationship with Offeror (Affiliate or Subsidiary)</th>
<th>Full Legal Name</th>
<th>Address</th>
</tr>
</thead>
</table>
| Affiliate (Parent Company to Branch) | The Branch Group, Inc. | P.O. Box 40004  
Roanoke, VA 24022 |
| Affiliate | Branch and Associates, Inc. | P.O. Box 40051  
Roanoke, VA 24022 |
| Affiliate | G.J. Hopkins, Inc. | P.O. Box 12467  
Roanoke, VA 24025 |
| Affiliate | Corman - E.V. Williams, a Joint Venture | 12001 Guilford Road  
Annapolis Junction, MD 20701 |
| Affiliate | Balfour Beatty Infrastructure, Inc./E.V. Williams, Inc. JV | 430 Eastwood Road  
Wilmington, NC 28403 |
| Affiliate | Flatiron | Branch, a Joint Venture | 385 Interlocken Crescent, Suite 900  
Broomfield, CO 80021 |
| Affiliate | Flatiron | Branch II, a Joint Venture | 385 Interlocken Crescent, Suite 900  
Broomfield, CO 80021 |
| Affiliate | Corman | Branch, a Joint Venture | 442 Rutherford Ave., N.E.  
Roanoke, VA 24016 |
ATTACHMENT 3.2.7(a)

CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project No.: 0081-154-733

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  
President  
Title

Branch Civil, Inc.
Name of Firm
ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0081-154-733

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.

E. Richard Capps, Jr., P.E.

Signature

August 31, 2017

Date

Senior Vice President

Title

STV Incorporated dba STV Group Incorporated

Name of Firm
ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0081-154-733

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

David L. Rowe  8.2.17  Manager
Signature  Date  Title

SMITH-ROWE, LLC
Name of Firm
ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0081-154-733

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

____________________  7/24/2017  
Signature  Date  Chief Legal Officer  Title

Bowman Consulting Group, Ltd.
Name of Firm
ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0081-154-733

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

Signature 8/17/2017 Principal Engineer/Branch Manager
Date Title

ECS Mid-Atlantic, LLC
Name of Firm
ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0081-154-733

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

[Signature] 7/24/2017 Vice President
Signature Date Title

EEE Consulting, Inc.

Name of Firm
ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0081-154-733

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

Signature

July 31, 2017

Date

President

Title

Endesco, Inc.

Name of Firm
ATTACHMENT 3.2.7(h)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0081-154-733

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

[Signature] [Date] [Title]

[Name of Firm]
ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0081-154-733

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

Signature

August 7, 2017

Malcolm T. Kerley, PE, President

Date

Title

NXL Construction Services, Inc

Name of Firm
ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0081-154-733

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

__________________________  July 28, 2017  Principal
Signature                Date                Title

Schnabel Engineering, LLC
Name of Firm
ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0081-154-733

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

Signature: [Signature]
Date: August 2, 2017
Title: Public Relations Specialist

Seventh Point Transportation PR
Name of Firm
3.2.8 VDOT Prequalification Certificate
CERTIFICATE OF QUALIFICATION

BRANCH CIVIL, INC.

Vendor Number: B319

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; UNDERGROUND UTILITIES

Issue Date: February 28, 2017

This Rating and Classification will Expire: February 28, 2018

Suzanne FR Lucas, State Prequalification Officer

Don E. Silles, Director of Contracts

It is not permissible to alter this document, use after posted expiration date, or use by persons or firms other than those named on this certificate.
September 6, 2017

Mr. Stephen D. Kindy, P.E.
Alternative Project Delivery Division
Virginia Department of Transportation
1401 East Broad Street
Richmond, VA 23219

Re: Branch Civil, Inc.
Virginia Department of Transportation
Request for Qualifications
A Design-Build Project
I-81 Bridge Replacement at Exit 114
From: 0.381 Mi. South of Christiansburg SCL
To: 0.510 Mi. North of Christiansburg SCL
Montgomery County, Town of Christiansburg, Virginia
State Project No.: 0081-154-733,P101,R201,C501,B601,B616
Federal Project No.: IM-081-2(992)
Contract ID Number: C00093074DB96

Dear Mr. Kindy:

The Hartford, through its operating entities, has issued surety bonds to Branch Civil, Inc., a subsidiary of The Branch Group since 1995. During this time we have favorably considered projects up to $150,000,000 with an aggregate program of $850,000,000 for member companies of The Branch Group. Our experience with Branch Civil, Inc. has been excellent, and we highly recommend them to you.

As surety for Branch Civil, Inc., The Hartford, is capable of obtaining 100% Performance Bond and 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, subject to acceptable review of the contract documents and bond forms, financing, availability of reinsurance, and Branch Civil, Inc. continuing to satisfy other underwriting considerations at the time the bonds are requested.
Please understand that any arrangement for any bonds is a matter between Branch Civil, Inc. and The Hartford and we assume no liability to third parties or you if, for any reason, we do not issue requested bonds.

Branch Civil, Inc. bonds are issued through Hartford Fire Insurance Company which is listed on the U.S. Treasury Department List and has an A.M. Best Rating of “A+” with Financial Size Category: XV ($2 Billion or greater). They are licensed to do business in the State of Virginia.

Sincerely,

Theresa S. Stump, Attorney-In-Fact

cc: Branch Civil, Inc.
Hartford Fire Insurance Company
POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS THAT:

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

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

Chrisl Horn, Lisa M. Battista, B. Jones III of Franklin TN, Stephen B. Dolin, Joanna M. Carson, Barbara Dawn Martin, Melissa L. Vier, of Lynchburg VA.
Stacey W. Hall, Nancy L. Adams, James J. Roberts, III, Stacey Boyle of Richmond VA, Robert M. Coon of Greensboro NC.
Windy Lovelady of Raleigh NC, Tambi Doby of Charlotte NC, Sherrie B. Danison, Bethany Murphy, Deanna W. Sparks, Theresa S. Stump of Roanoke, VA.

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

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

John Gray, Assistant Secretary
M. Ross Fisher, Senior Vice President

STATE OF CONNECTICUT

COUNTY OF HARTFORD

ss. Hartford

On this 11th day of January, 2015, before me personally came M. Ross Fisher, to me known, who being by me duly sworn, did depose and say: that he resides in the County of Hartford, State of Connecticut; that he is the Senior Vice President of the Companies. The corporations described in and which executed the above instrument: that he knows the seals of the said corporations; that the seals affixed to the said instrument are such corporate seals; that they were so affixed by authority of the Boards of Directors of said corporations and that he signed his name thereto by like authority.

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

CERTIFICATE

I, the undersigned Assistant Vice President of the Companies, DO HEREBY CERTIFY that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is still in full force effective as of September 6, 2017.

Kevin Heckman, Assistant Vice President
ATTACHMENT 3.2.10
State Project No. 0081-154-733

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.

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<td>Derek Overstreet</td>
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<td>NXL Construction Services, Inc.</td>
<td>Joseph Roy Hamed</td>
<td>Christiansburg, VA</td>
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</table>
CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

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

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

That the period of its duration is perpetual; and

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

Nothing more is hereby certified.

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

[Signature]
Joel H. Peck, Clerk of the Commission
Alert to corporations regarding unsolicited mailings from VIRGINIA COUNCIL FOR CORPORATIONS is available from the Bulletin Archive link of the Clerk's Office website.

| CORP ID: | 0295618 - 3 | STATUS: 00 ACTIVE | STATUS DATE: 11/25/86 |
| CORP NAME: | Branch Civil, Inc. | |
| DATE OF CERTIFICATE: | 11/25/1986 | PERIOD OF DURATION: | |
| STATE OF INCORPORATION: | VA | VIRGINIA STOCK INDICATOR: | S STOCK |
| MERGER IND: | S | SURVIVOR | |
| CONVERSION/DOMESTICATION IND: | | |
| GOOD STANDING IND: | Y | MONITOR INDICATOR: | |
| R/A NAME: | MELANIE F WHEELER | |
| STREET: | 442 RUTHERFORD AVE NE | |
| CITY: | ROANOKE | |
| STATE: | VA | ZIP: | 24016-0000 |
| R/A STATUS: | 2 | OFFICER | |
| EFF. DATE: | 01/11/08 | LOC : | 217 |
| ACCEPTED AR#: | 216 16 7579 | DATE: | 11/14/16 | ROANOKE CITY |
| CURRENT AR#: | 216 16 7579 | DATE: | 11/14/16 | STATUS: A |
| ASSESSMENT INDICATOR: | 0 | |
| YEAR FEES | PENALTY | INTEREST | TAXES | BALANCE | TOTAL SHARES |
| 16 | 100.00 | | | | 5,000 |

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

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

BRANCH CIVIL INC
PO BOX 40004
ROANOKE, VA 24022-0004

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

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)
CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That STV GROUP INCORPORATED (USED IN VA. BY: STVINCORPORATED), a corporation incorporated under the law of New York, is authorized to transact business in the Commonwealth of Virginia;

That it obtained a certificate of authority to transact business in Virginia from the Commission on August 9, 1999; and

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

Nothing more is hereby certified.

Signed and Sealed at Richmond on this Date:
February 17, 2012

Joel H. Peck, Clerk of the Commission
Alert to corporations regarding unsolicited mailings from VIRGINIA COUNCIL FOR CORPORATIONS is available from the Bulletin Archive link of the Clerk's Office website.

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(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

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

PROFESSIONS: ENG
STV INCORPORATED DBA STV GROUP INC
STV GROUP INC
10800 MIDLOTHIAN TNPK SUITE 302
RICHMOND, VA 23235

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

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)
COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

EXPIRES ON
02-28-2018

NUMBER
0411000661

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

PROFESSIONS: ARC, ENG

STV INCORPORATED
STV GROUP INCORPORATED
2722 MERRILEE DR SUITE 350
FAIRFAX, VA 22031

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

RECEIVED
FEB 26 2016
STV Incorporated
COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

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

PROFESSIONS: ENG

STV INCORPORATED
STV GROUP INCORPORATED
1400 I STREET NW
STE 1100
WASHINGTON, DC 20005

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

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (05/2015)

(DETACH HERE)

DPOR-PC (05/2015)

Status can be verified at http://www.dpor.virginia.gov
COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

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

PROFESSIONS: ENG

STV INCORPORATED
STV/RALPH WHITEHEAD ASSOCIATES
P O BOX 35624
CHARLOTTE, NC 28235

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

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

BOARD FOR APELSCIDLA
BUSINESS ENTITY BRANCH OFFICE REGISTRATION
NUMBER: 0411000710 EXPIRES: 02-28-2018
PROFESSIONS: ENG
STV INCORPORATED
STV/RALPH WHITEHEAD ASSOCIATES
P O BOX 35624
CHARLOTTE, NC 28235

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

NUMBER
0411000845

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

PROFESSIONS: ENG

STV INCORPORATED
STV GROUP INCORPORATED
7125 AMBASSADOR RD
SUITE 200
BALTIMORE, MD 21244

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

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)
COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

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

DEREK BRANDON OVERSTREET
13806 PARSONS BAY DRIVE
CHESTER, VA 23836

Status can be verified at http://www.dporvirginia.gov

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)
Commonwealth of Virginia

STATE CORPORATION COMMISSION

Richmond, November 5, 2010

This certificate of registration to transact business in Virginia is this day issued for

Smith-Rowe, LLC

a limited liability company organized under the laws of NORTH CAROLINA and the said company is authorized to transact business in Virginia, subject to all Virginia laws applicable to the company and its business.

State Corporation Commission
Attest:

[Signature]
Clerk of the Commission
Alert to corporations regarding unsolicited mailings from VIRGINIA COUNCIL FOR CORPORATIONS is available from the Bulletin Archive link of the Clerk’s Office website.

Smith-Rowe, LLC

General

SCC ID: T0447989
Entity Type: Foreign Limited Liability Company
Jurisdiction of Formation: NC
Date of Formation/Registration: 11/5/2010
Status: Active

Principal Office

639 OLD US 52 S
MOUNT AIRY NC27030

Registered Agent/Registered Office

SOWERS CONSTRUCTION CO., INC.
767 FISH LAKE ROAD
CANA VA 24317
CARROLL COUNTY 117
Status: Active
Effective Date: 3/4/2014

Screen ID: e1000

Need additional information? Contact sccinfo@scc.virginia.gov Website questions? Contact: webmaster@scc.virginia.gov

We provide external links throughout our site. 

[PDF/.pdf] Reader [Excel (.xls) Viewer] [PowerPoint (.ppt) Viewer] [Word (.doc) Viewer] 

Build # 1.0.0.23229
COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

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

SMITH-ROWE LLC
639 OLD US 52 SOUTH
MOUNT AIRY, NC 27030

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

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

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

*CLASSIFICATIONS* H/H
NUMBER: 2705137577 EXPIRES: 12-31-2018
SMITH-ROWE LLC
639 OLD US 52 SOUTH
MOUNT AIRY, NC 27030

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

STATE CORPORATION COMMISSION

Richmond, June 7, 1995

This is to Certify that the certificate of incorporation of

Bowman Consulting Group, P.C.

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

June 7, 1995

State Corporation Commission

[Signature]

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

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<td>STREET:</td>
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<td>AR RTN MAIL:</td>
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<tr>
<td></td>
<td>1111 E. MAIN STREET</td>
<td></td>
<td></td>
<td></td>
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<td>RICHMOND</td>
<td>STATE:</td>
<td>VA</td>
<td>ZIP:</td>
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<td>R/A STATUS:</td>
<td>5 B.E. AUTH IN VI</td>
<td>EFF. DATE:</td>
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<td>LOC:</td>
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<td>217 08 5960</td>
<td>DATE:</td>
<td>05/22/17</td>
<td>RICHMOND CITY</td>
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<td>CURRENT AR#:</td>
<td>217 08 5960</td>
<td>DATE:</td>
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<td>STATUS:</td>
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(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

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

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

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)

DPOR-LIC (05/2015)
CERTIFICATE OF FACT

I Certify the Following from the Records of the Commission:

That ECS - Mid-Atlantic, LLC is duly organized as a limited liability company under the law of the Commonwealth of Virginia;

That the date of its organization is April 16, 2004; and

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

Nothing more is hereby certified.

Signed and Sealed at Richmond on this Date:
June 7, 2017

Joel H. Peck, Clerk of the Commission
ECS - Mid-Atlantic, LLC

General

SCC ID: S1208216
Entity Type: Limited Liability Company
Jurisdiction of Formation: VA
Date of Formation/Registration: 4/16/2004
Status: Active

Principal Office

14026 THUNDERBOLT PL STE 100
CHANTILLY VA20151

Registered Agent/Registered Office

JAMES A ECKERT
14026 THUNDERBOLT PL STE 100
CHANTILLY VA 20151
FAIRFAX COUNTY 129
Status: Active
Effective Date: 4/16/2004

Screen ID: e1000

Need additional information? Contact sccinfo@scc.virginia.gov Website questions? Contact: webmaster@scc.virginia.gov

We provide external links throughout our site.
COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

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

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

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

(SEE REVERSE SIDE FOR PRIVILEGED AND INSTRUCTIONS)
Commonwealth of Virginia

STATE CORPORATION COMMISSION

Richmond, June 23, 1998

This is to Certify that the certificate of incorporation of EEE Consulting, Inc. was this day issued and admitted to record in this office and that the said corporation is authorized to transact its business subject to all Virginia laws applicable to the corporation and its business. Effective date:

June 23, 1998

State Corporation Commission

[Signature]

Clerk of the Commission
CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

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

That the date of its incorporation is June 23, 1998;

That the period of its duration is perpetual; and

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

Nothing more is hereby certified.

Signed and Sealed at Richmond on this Date:
May 15, 2017

Joel H. Peck, Clerk of the Commission

CISECOM
Document Control Number: 1705155595
Alert to corporations regarding unsolicited mailings from VIRGINIA COUNCIL FOR CORPORATIONS is available from the Bulletin Archive link of the Clerk’s Office website.

CISM0180 CORPORATE DATA INQUIRY

CORP ID: 0504941-6 STATUS: 00 ACTIVE STATUS DATE: 08/04/04
CORP NAME: EEE Consulting, Inc.

DATE OF CERTIFICATE: 06/23/1998 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: CT CORPORATION SYSTEM

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

CITY: GLEN ALLEN STATE: VA ZIP: 23060-0000
R/A STATUS: 5 B.E. AUTH IN VI EFF. DATE: 10/04/13 LOC: 143
ACCEPTED AR#: 217 08 9026 DATE: 05/26/17 HENRICO COUNTY
CURRENT AR#: 217 08 9026 DATE: 05/26/17 STATUS: A ASSESSMENT INDICATOR: 0
YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES
17 1,700.00

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

EXPIRES ON
12-31-2017

NUMBER
0407003798

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

PROFESSION: ENG
EEE CONSULTING INC
8525 BELL CREEK RD
MECHANICSVILLE, VA 23116

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

SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS

DPOR-LIC (05/2015)
COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

NUMBER
0411000435

PROFESSIONS: ENG

EEE CONSULTING INC
201 CHURCH ST
BLACKSBURG, VA 24060

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

TOWN OF BLACKSBURG
BUSINESS LICENSE
2016

EXPIRATION DATE – 12/31/16
Renew by: 3/1/17

This is to certify that EEE CONSULTING INC
Has complied with all of the requirements to operate a business in the Town of Blacksburg
as described in Code SECTION 11-200

License Number

16-00002816

Director of Financial Services
STATE CORPORATION COMMISSION

Richmond, May 7, 1998

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

ENDESCO, INC.

a corporation organized under the laws of MARYLAND

and that the said corporation is authorized to transact business in Virginia, subject to all Virginia laws applicable to the corporation and its business.

State Corporation Commission

Attest:

William J. Bridge

Clerk of the Commission
ENESCO, INC.

General

SCC ID: F1337361
Entity Type: Foreign Corporation
Jurisdiction of Formation: MD
Date of Formation/Registration: 5/7/1998
Status: Active
Shares Authorized: 200000

Principal Office

15245 SHADY GROVE ROAD STE 335
ROCKVILLE MD 20850

Registered Agent/Registered Office

CORPORATION SERVICE COMPANY
Bank of America Center, 16th Floor
1111 East Main Street
RICHMOND VA 23219
RICHMOND CITY 210
Status: Active
Effective Date: 4/29/2011

Select an action

- File a registered agent change
- File a registered office address change
- Resign as registered agent
- File an annual report
- Pay annual registration fee
- Order a certificate of good standing
- View eFile transaction history
- Manage email notifications

Screen ID: e1000

Need additional information? Contact sccinfo@virginia.gov Website questions? Contact: webmaster@virginia.gov

PDF/HTML Reader  D Text Mode Viewer  PowerPoint/Word Viewer  Word (.doc) Viewer

Build #: 1.3.0.2320
McDonough Bolyard Peck, Inc.
CERTIFICATE OF GOOD STANDING

I Certify the Following from the Records of the Commission:

That McDonough Bolyard Peck, Inc. is duly incorporated under the law of the Commonwealth of Virginia;

That the date of its incorporation is December 29, 1989;

That the period of its duration is perpetual; and

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

Nothing more is hereby certified.

Signed and Sealed at Richmond on this Date:
September 26, 2011

Joel H. Peck, Clerk of the Commission
Alert to corporations regarding unsolicited mailings from VIRGINIA COUNCIL FOR CORPORATIONS is available from the Bulletin Archive link of the Clerk's Office website.

CISM0180 CORPORATE DATA INQUIRY

CORP ID: 0351800 - 8 STATUS: 00 ACTIVE STATUS DATE: 02/05/09
CORP NAME: McDonough Bolyard Peck, Inc.

DATE OF CERTIFICATE: 12/29/1989 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: 500.00 MON NO: MON STATUS: MONITOR DTE:
R/A NAME: REES BROOME, PC

STREET: 1900 GALLOWS RD STE 700

CITY: TYSONS CORNER STATE: VA ZIP: 22182-0000
R/A STATUS: 4 ATTORNEY EFF. DATE: 09/01/12 LOC: 129
ACCEPTED AR#: 217 01 5704 DATE: 12/27/16 FAIRFAX COUNTY
CURRENT AR#: 217 01 5704 DATE: 12/27/16 STATUS: A ASSESSMENT INDICATOR: 0
YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES
16 1,570.00

(Screen Id:/Corp_Data_Inquiry)
NXL Construction Services, Inc.
I Certify the Following from the Records of the Commission:

NXL Construction Co., Inc. is a corporation existing under and by virtue of the laws of Virginia, and is in good standing.

The date of incorporation is November 17, 1989.

Nothing more is hereby certified.

Signed and Sealed at Richmond on this Date:
July 10, 2007

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

State Corporation Commission

I Certify the Following from the Records of the Commission:

A duly attested copy of a certificate setting forth that NXL Construction Co., Inc. conducts business in Virginia under the assumed or fictitious name of NXL CONSTRUCTION SERVICES, INC. was filed in the Clerk’s Office of the Commission on September 16, 1992.

Nothing more is hereby certified.

Signed and Sealed at Richmond on this Date:
July 29, 2009

Joel H. Peck, Clerk of the Commission
Alert to corporations regarding unsolicited mailings from VIRGINIA COUNCIL CORPORATIONS is available from the Bulletin Archive link of the Clerk’s Office with the following details:

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<tr>
<th>Field</th>
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<tr>
<td>STATUS DATE:</td>
<td>11/17/89</td>
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<tr>
<td>CORP NAME:</td>
<td>NXL Construction Co., Inc.</td>
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<tr>
<td>DATE OF CERTIFICATE:</td>
<td>11/17/1989</td>
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<td>PERIOD OF DURATION:</td>
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<td>STATE OF INCORPORATION:</td>
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<td>R/A NAME:</td>
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<td>STREET:</td>
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<td>ZIP:</td>
<td>23229-0000</td>
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<td>EFF. DATE:</td>
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(Screen Id:/Corp_Data_Inquiry)
COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation
9060 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

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

PROFESSIONS: ENG
NXL CONSTRUCTION COMPANY INC
110 WENN DRIVE
CHRISTIANSBURG, VA 24073

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

(SEE REVERSE SIDE FOR PRIVILEGES AND INSTRUCTIONS)
COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation
9960 Mayland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

NXL CONSTRUCTION CO INC
NXL CONSTRUCTION SERVICES INC
114 E CARY ST STE 200
RICHMOND, VA 23219

Status can be verified at http://www.dporvirginia.gov

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

BUSINESS ENTITY REGISTRATION

NUMBER: 0407003031 EXPIRES: 12-31-2017
PROFESSIONS: ENG, LS

Status can be verified at http://www.dporvirginia.gov
Commonwealth of Virginia

State Corporation Commission

CERTIFICATE OF FACT

I Certify the Following from the Records of the Commission:

Schnabel Engineering Consultants, Inc., a Virginia corporation, merged into Schnabel Engineering, LLC, a Virginia limited liability company, which is the surviving entity effective as of January 1, 2016.

Nothing more is hereby certified.

Signed and Sealed at Richmond on this Date:
January 20, 2016

Joel H. Peck, Clerk of the Commission
Schnabel Engineering, LLC

General
SCC ID: 50889123
Entity Type: Limited Liability Company
Jurisdiction of Formation: VA
Date of Formation/Registration: 12/19/2002
Status: Active

Principal Office
9800 JEB STUART PARKWAY
SUITE 200
GLEN ALLEN VA 23059

Registered Agent/Registered Office
CT CORPORATION SYSTEM
4701 COX ROAD, SUITE 285
GLEN ALLEN VA 23050
HANOVER COUNTY 143
Status: Active
Effective Date: 10/4/2013
COMMONWEALTH of VIRGINIA
Department of Professional and Occupational Regulation
9960 Maryland Drive, Suite 400, Richmond, VA 23233
Telephone: (804) 367-8500

NUMBER
0411000323

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

SCHNABEL ENGINEERING, LLC
1901 SOUTH MAIN ST STE 11
BLACKSBURG, VA 24060

PROFESSIONS: ENG

EXPIRES ON
02-28-2018

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

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

NUMBER
0411000323

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

SCHNABEL ENGINEERING, LLC
1901 SOUTH MAIN ST STE 11
BLACKSBURG, VA 24060

PROFESSIONS: ENG

EXPIRES ON
02-28-2018

Status can be verified at http://www.dpor.virginia.gov
Seventh Point, Inc.
Commonwealth of Virginia

STATE CORPORATION COMMISSION

Richmond, March 4, 1985

This is to Certify that the certificate of incorporation of HAMBRIGHT, CALCAGNO & DOWNING, INC. was this day issued and admitted to record in this office and that the said corporation is authorized to transact its business subject to all the laws of the State applicable to the corporation and its business.

State Corporation Commission

[Signature]

Clerk of the Commission
ARTICLES OF AMENDMENT
FOR THE ARTICLES OF INCORPORATION OF
HAMBRIGHT, CALCAGNO & DOWNING, INC.

I.

The name of the corporation is Hambright, Calcagno & Downing, Inc.

II.

The Amendment adopted is to change Article I of the Articles of Incorporation to change the corporation's name such that Article I, as amended, will read that: The name of the corporation is Seventh Point, Inc.

III.

The foregoing amendment was adopted on January 24, 2008.

IV.

The amendment was adopted by the unanimous consent of the shareholders and directors.

V.

This Certificate of Amendment shall become effective at the time such Certificate is issued by the State Corporation Commission.

The undersigned President declares that the facts herein stated are true as of the 24th day of January, 2008.

HAMBRIGHT, CALCAGNO & DOWNING, INC.

By:

Christopher A. Calcagno, President
The State Corporation Commission has found the accompanying articles submitted on behalf of
Seventh Point, Inc. (formerly HAMBRIGHT, CALCAGNO & DOWNING, INC.)
to comply with the requirements of law, and confirms payment of all required fees. Therefore, it is ORDERED that this

CERTIFICATE OF AMENDMENT

be issued and admitted to record with the articles of amendment in the Office of the Clerk of the Commission, effective February 1, 2008.

The corporation is granted the authority conferred on it by law in accordance with the articles, subject to the conditions and restrictions imposed by law.

STATE CORPORATION COMMISSION

By [Signature]
Commissioner
Alert to corporations regarding unsolicited mailings from VIRGINIA COUNCIL FOR CORPORATIONS is available from the Bulletin Archive link of the Clerk’s Office website.

CISM0180 CORPORATE DATA INQUIRY

CORP ID: 0267541 - 1 STATUS: 00 ACTIVE STATUS DATE: 04/17/06
CORP NAME: Seventh Point, Inc.

DATE OF CERTIFICATE: 03/04/1985 PERIOD OF DURATION: INDUSTRY CODE: 00
STATE OF INCORPORATION: VA VIRGINIA STOCK INDICATOR: S STOCK
MERGER IND:

GOOD STANDING IND: Y CONVERSION/DOMESTICATION IND:

MON NO: MON STATUS: MONITOR DTE:

R/A NAME: ALBERT H POOLE

STREET: 4705 COLUMBUS ST AR RTN MAIL:

CITY: VIRGINIA BEACH STATE : VA ZIP: 23462-6749
R/A STATUS: 4 ATTORNEY EFF. DATE: 03/24/98 LOC : 228
ACCEPTED AR#: 217 05 8559 DATE: 03/27/17 VIRGINIA BEACH
CURRENT AR#: 217 05 8559 DATE: 03/27/17 STATUS: A ASSESSMENT INDICATOR: 0

YEAR FEES PENALTY INTEREST TAXES BALANCE TOTAL SHARES

17 100.00

(Screen Id:/Corp_Data_Inquiry)
Design-Build Project Manager
## KEY PERSONNEL RESUME FORM

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

<table>
<thead>
<tr>
<th>a. Name &amp; Title:</th>
<th>Jason Hoyle, Vice President of Design-Build/Major Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. Project Assignment:</td>
<td>Design-Build Project Manager</td>
</tr>
<tr>
<td>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):</td>
<td>Branch Civil, Inc. (Full Time)</td>
</tr>
<tr>
<td>d. Employment History: With this Firm 2 Years With Other Firms 20 Years</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Branch Civil, Inc., March 2017-Present, Vice President of Design-Build/Major Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focuses primarily on Design-Build (D-B) and other alternative procurement projects which represent a growing sector within the organization. Jason uses his expertise to identify the unique risks and opportunities inherent in D-B delivery, coordinating design and construction to operate as a single cohesive unit, advancing the design to support the construction approach and schedule. He uses his competencies to manage large, complex D-B projects, as well as providing oversight and direction for D-B construction processes and operations. His responsibilities include development of Branch’s procurement process for Design-Build projects, developing and overseeing management practices, and reporting for Branch’s ongoing D-B projects. With over 20 years of experience, Jason’s proven track record of success, work ethic, and professionalism align directly with the company’s core values.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Branch Civil, Inc., February 2016-March 2017, Director of Procurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managed D-B and Bid-Build construction projects, while providing oversight of the company’s estimating and procurement process and operations. Responsibilities included development of the company’s D-B procurement process, developing and overseeing management practices and reporting for the company’s ongoing D-B projects. Project management responsibilities included serving as the primary point of contact with the owner and local public entities, oversight and management including both the construction knowledge and requirements associated with ROW acquisitions, environmental permitting and mitigation, as well as utility relocations, both in-house and those associated with third-party utility owners.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Blythe Development Company, June 2010-February 2016, Division Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsible for all aspects of heavy highway and civil improvement projects in the Greensboro, NC and Virginia. Oversaw the safety program, and pursuit and construction of all Blythe Development projects for this region. Responsible for all D-B projects for the company including selecting projects to pursue, developing responses to RFQs, preparing technical and price proposals, and managing construction operations from award to acceptance.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Blythe Development Company, April 2003-June 2010, Project Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Manager for multiple NCDOT heavy highway projects, including new location, improvement of existing infrastructure, and replacement of existing structures. Served as D-B Project Manager for two NCDOT projects: NC73 and Macy Grove Road. Blythe was a joint venture partner on the I-73/PTI project for NCDOT and Jason fulfilled the role of Assistant D-B Project Manager.</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Blythe Development Company, June 1995-April 2003, Project Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Manager for several NCDOT projects near Charlotte, NC. Responsible for all construction aspects of new location, widening, and bridge replacement projects. Bridge construction included new construction and remove/replace. Bridges were constructed over roads, wetlands, streams, and railroads.</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>e. Education: Name &amp; Location of Institution(s)/Degree(s)/Year/Specialization:</th>
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<tbody>
<tr>
<td>University of North Carolina at Charlotte / Charlotte, North Carolina / BS / 1997 / Civil Engineering</td>
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<table>
<thead>
<tr>
<th>f. Active Registration: Year First Registered/Discipline/VA Registration #:</th>
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<tbody>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>g. Document the extent and depth of your experience and qualifications relevant to the Project.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Note your role, responsibility, and specific job duties for each project, not those of the firm.</td>
</tr>
<tr>
<td>2. Note whether experience is with current firm or with other firm.</td>
</tr>
<tr>
<td>3. Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</td>
</tr>
</tbody>
</table>
NCDOT I-840 Greensboro Eastern Loop, Greensboro, NC – Project Manager

Led the estimating team through project award and was Project Manager actively involved with construction on this $112 million project. Under his management, he developed an aggressive schedule and a team of internal staff and subcontractors to execute the work. He oversaw the construction operations and made sure adequate staff and equipment resources were available. This project consisted of widening 2 miles of US 29 and 4.2 miles of new location of I-840. Approximately 2.2 million CY of material were moved and 12 structures constructed. One of the 12 structures included the replacement of a 2-span bridge over US 29 which carries 65,000 vpd. Jason led the project team through a revised phasing plan that reduced construction of this bridge by two months by changing the MOT approach. An existing bridge on I-840 was widened by using phased construction and multiple traffic shifts. The project finished 12 months ahead of the contract completion date.

(06/12 – 09/15, with Blythe Development Company)

Relevancy: Interstate bridge replacement requiring phased bridge construction, the development of a complex TMP/MOT plan, stakeholder coordination, FHWA guidelines and requirements, secondary road alignment/widening, new and widening bridge construction, ROW acquisition, utility relocations, geotechnical challenges/mitigation including unsuitable material, Traffic Management Plan development and execution, public involvement/communication, QA/QC coordination.

NCDOT I-73/PTIA Design-Build, Greensboro, NC – Assistant Design-Build Project Manager

As Blythe’s representative in the joint venture, Jason led the company’s interest in pursuing the project, responded to the RFQ, prepared the technical and price proposals, introduced over 20 ATC’s, and oversaw the project as the Assistant D-B Project Manager. Responsibilities on this $181 million project included administering the contract, communicating with the owner, document control, making sure that adequate resources were available and monitoring adherence to the project schedule. The project consisted of widening 1.5 miles of existing NC 68 (phased construction and MOT) and 9.4 miles of new location construction of I-73. The development of the technical proposal and design led to multiple approved ATC’s with innovative interchanges which resulted in a lower cost and early completion. The ATC’s included concepts which resulted in fewer impacts to ROW, minimal utility impacts, and simplified MOT. New grade separated interchanges were constructed at five locations and included the replacement or new construction of bridges at each interchange.

(03/13 – 03/16, with Blythe Development Company)

Relevancy: DOT design-build, new and replacement interstate bridge requiring phased bridge construction, the development of a complex TMP/MOT plan, stakeholder coordination, FHWA guidelines and requirements, interstate secondary road alignment/widening, interchange construction, ROW acquisition, utility relocations, wetland and stream mitigation, environmental monitoring, geotechnical challenges/mitigation including unsuitable material, Traffic Management Plan, public involvement/communication, QA/QC coordination.

NCDOT Macy Grove Road Design-Build, Kernersville, NC – Design-Build Project Manager

Responsible for the overall design and construction of the project, as well as the contract administration and partnering with NCDOT on this $38 million project. His responsibility as DBPM also included managing the procurement process including proposing several ATC’s. This project provided a new interchange with I-40 Business and Macy Grove Road to improve safety, access, and capacity along I-40 Business and Macy Grove Road. To construct the new interchange and maintain the 55,000 vpd along I-40 Business, an efficient MOT plan was developed and implemented in order to construct the project in two construction seasons while keeping four active lanes of traffic open. Extensive utilities, including the relocation of three 30” + diameter high pressure gas transmission lines, required a detailed plan for utility coordination and construction. Roadway improvements consisted of the construction of new ramps, the realignment of Macy Grove Road, widening several secondary roads, and the construction of a roundabout. Three bridges were constructed using MSE walls to span over I-40 Business, East Mountain Street, and Norfolk Southern’s railroad. The bridge over I-40 Business involved phased construction of a new structure and demolition of the existing while maintaining traffic on I-40 Business.

(06/12 – 09/15, with Blythe Development Company)

Relevancy: DOT design-build, FHWA guidelines and requirements, primary and secondary road widening, ROW acquisition, utility relocations, wetland and stream mitigation, environmental monitoring, geotechnical challenges/mitigation, Traffic Management Plan development and execution, public involvement/communication, QA/QC coordination, new interchange, bridge construction, MSE walls, roundabout, ATC’s.

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

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

As the Design-Build Project Manager, Jason will not be required to be on-site full-time.
Quality Assurance Manager
### Brief Resume of Key Personnel anticipated for the Project.

<table>
<thead>
<tr>
<th>a. Name &amp; Title:</th>
<th>Joseph Hamed, PE, CCM, PMP, DBIA, Quality Assurance Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. Project Assignment:</td>
<td>Quality Assurance Manager</td>
</tr>
<tr>
<td>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):</td>
<td>NXL Construction Services, Inc. (Full Time)</td>
</tr>
<tr>
<td>d. Employment History: With this Firm 6 Years With Other Firms 22 Years</td>
<td>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):</td>
</tr>
</tbody>
</table>

**NXL Construction Services, Inc., May 2011–Present, Quality Assurance Manager**

Joseph is a Licensed Professional Engineer, Project Manager, and Construction Manager with over 25 years of experience in the transportation construction industry. In his current role as Quality Assurance Manager, Joseph has served or is currently serving as the QAM on five VDOT design-build projects. In addition, he performs constructability reviews on various projects across the Commonwealth on an as-needed basis. He has been providing these services since his tenure as an Area Construction Engineer with VDOT and has dealt directly with many constructability issues during bridges, grading, draining, paving, and lighting construction.

**Virginia Department of Transportation, August 2004–May 2011, Area Construction Engineer/Program Delivery Engineer/Project Manager**

Joseph held a variety of positions during his tenure with the Department. As a Project Manager, he provided constructability reviews, cost analysis, and project scheduling. As an Area Construction Engineer, Joseph provided responsible charge oversight for a variety of projects throughout the Salem District that included grading and bridge construction. In this capacity, he managed a team of construction inspectors and construction managers; and was responsible for the on time/on budget/quality delivery of his projects. As required by the Area Construction Engineer position, he also coordinated closely with a wide variety of stakeholders both inside and outside of the Department including engineers, contractors, localities, property owners, and business owners.

As the Program Delivery Engineer for the SW Region, Joseph provided oversight of project delivery in all phases including planning, programming, project design, procurement, and construction. These projects included traffic signals, traffic engineering safety projects, maintenance projects for two interstate mountain tunnels, and technology projects for cameras, message boards, and fiber optic cable.

**HNTB, March 2004–July 2004, Resident Engineer**

Assigned to a $17 million VDOT/PPTA project, the first of its kind in the Salem District, Joseph provided onsite engineering services overseeing the quality control staff. He and his staff documented progress, performed E&S inspections, logged/tracked non-conforming work, and assured that the work met or exceeded the relevant VDOT Standards and Specifications. Joseph also provided engineering support and analysis of a wide range of problems including undercut depths, drilled shaft modifications, and drainage modifications.

**The Louis Berger Group, April 1999–January 2004, Project Manager/Project Engineer**

Joseph was assigned to a $40 million VDOT project to construct a new 4-lane bypass highway, two interchanges, eight bridges, grading, drainage, pavement, retaining walls, utilities, landscaping, and lighting. He and his staff of 10 construction inspectors monitored the contractor’s progress with respect to cost and quality, documented the work, tracked non-conforming work, and prepared monthly pay vouchers. Joseph managed multiple claims on behalf of the owner, assembled claim files for each issue, and made recommendations for claims resolution to the owner.

| e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: | University of Idaho, Moscow, ID / BS / 1990 / Civil Engineering |
| f. Active Registration: Year First Registered/Discipline/VA Registration #: | 2004 / Professional Engineer / Virginia #039327  
2005 / Project Management Professional #278341  
2012 / Certified Construction Manager #2433  
2015 / Design-Build Institute of America #D-2361 |
| 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. |
Build Quality Assurance Manager, Joseph and his staff monitored and documented construction and QC processes for the construction of a pedestrian bridge over I-581, and pedestrian trails/bridges. The project's innovative approach provided a diverging diamond interchange that reduces ROW acquisition and environmental impacts. As the Design-Build Quality Assurance Manager, Joseph and his staff monitored and documented construction and QC processes to assure adherence to the relevant plans, specifications, permit requirements, inspection/testing frequency, and potential personal/traffic safety issues.

Preparatory Inspection Meetings prior to the commencement of major work packages to review requirements including plans, specifications, permit requirements, inspection/testing frequency, and potential personal/traffic safety issues. (3/13 – Present, with NXL)

Relevancy: Provided QA services in accordance with VDOT requirements for this design-build project involving bridge widening, grading, drainage, paving, sound walls, lighting, traffic and signals.

VDOT I-581 and Valley View Boulevard Phase II Interchange Improvements, Roanoke, VA–Design-Build Quality Assurance Manager

Responsible for QA on this $3.6 million D-B project which constructed an existing interchange that serves a major shopping center. The design-build team’s scope of work included design, ROW services, environmental permitting, traffic management, grading, drainage, paving, sound walls, lighting, traffic signals, widening an existing multi-lane overpass bridge, construction of a pedestrian bridge over I-581, and pedestrian trails/bridges. The project’s innovative approach provided a diverging diamond interchange that reduces ROW acquisition and environmental impacts. As the Design-Build Quality Assurance Manager, Joseph and his staff monitored and documented construction and QC processes to assure compliance with the contract requirements including VDOT’s Minimum Requirements for Quality Assurance and Quality Control on Design Build and Public-Private Transportation Act Projects. He also reviewed, commented on, and certified the contractor’s monthly pay applications. Non-conforming work was logged and tracked until approved corrections were complete. Joseph also scheduled and facilitated the Preparatory Inspection Meetings prior to the commencement of major work packages to review requirements including plans, specifications, permit requirements, inspection/testing frequency, and potential personal/traffic safety issues. (5/11 – 7/14, with NXL)

Relevancy: Provided QA services in accordance with VDOT requirements for this design-build project involving bridge widening, grading, drainage, paving, sound walls, lighting, traffic and signals.

VDOT I-81 Corridor Safety Improvements, Montgomery County, VA–Design-Build Quality Assurance Manager

Responsible for QA on this $75 million D-B project which provided an additional interstate southbound lane through five miles of mountainous terrain. The contractor’s scope of work included design, ROW services, drilling, blasting, grading, drainage, paving, multiple bridge construction, demolition of existing structures, environmental permitting, maintenance of traffic, and retaining walls. As part of the D-B team, Joseph provided independent Quality Assurance in accordance with the Department’s design-build specifications including VDOT’s Minimum Requirements for Quality Assurance and Quality Control on Design Build and Public-Private Transportation Act Projects. He and his staff provided ongoing observation of construction and QC processes to assure adherence to the relevant plans, specifications, and standards. He also reviewed, commented on, and certified the contractor’s monthly pay applications. Non-conforming work was logged and tracked until approved corrections were complete. Joseph also scheduled and facilitated Preparatory Inspection Meetings prior to the commencement of major work packages to review requirements including plans, specifications, permit requirements, inspection/testing frequency, and potential personal/traffic safety issues. (5/11 – 7/14, with NXL)

Relevancy: Provided QA services in accordance with VDOT requirements for this design-build project involving interstate bridge and roadway construction, bridge demolition, and traffic management.

VDOT Route 60 / Main Street Bridge Replacement, Clifton Forge, VA–Design-Build Quality Assurance Manager

Responsible for QA on this $3.6 million D-B project which replaced an aged concrete bridge in an urban environment. Since the bridge deck provides access to businesses on both sides of the street, maintaining access to businesses during construction was a key aspect of this project. The D-B team’s scope of work included design, environmental permitting, demolition of existing structure, maintaining constant access to businesses, bridge construction, drainage, paving, electrical, traffic signal, and signage. Mr. Hamed provided QA services in accordance with VDOT requirements including VDOT’s Minimum Requirements for Quality Assurance and Quality Control on Design Build and Public-Private Transportation Act Projects. The QA staff provided constant oversight of construction and QC processes to assure compliance with contract requirements. He also reviewed, commented on, and certified the contractor’s monthly pay applications. Non-conforming work was logged and tracked until approved corrections were complete. Joseph also scheduled and facilitated Preparatory Inspection Meetings prior to the commencement of major work packages to review requirements including plans, specifications, permit requirements, inspection/testing frequency, and potential personal/traffic safety issues. (5/11 – 12/12, with NXL)

Relevancy: Provided QA services in accordance with VDOT requirements for this design-build project involving bridge widening, grading, drainage, paving, sound walls, lighting, traffic and signals.

VDOT Route 60 / Main Street Bridge Replacement, Clifton Forge, VA–Design-Build Quality Assurance Manager

Responsible for QA on this $3.6 million D-B project which replaced an aged concrete bridge in an urban environment. Since the bridge deck provides access to businesses on both sides of the street, maintaining access to businesses during construction was a key aspect of this project. The D-B team’s scope of work included design, environmental permitting, demolition of existing structure, maintaining constant access to businesses, bridge construction, drainage, paving, electrical, traffic signal, and signage. Mr. Hamed provided QA services in accordance with VDOT requirements including VDOT’s Minimum Requirements for Quality Assurance and Quality Control on Design Build and Public-Private Transportation Act Projects. The QA staff provided constant oversight of construction and QC processes to assure compliance with contract requirements. He also reviewed, commented on, and certified the contractor’s monthly pay applications. Non-conforming work was logged and tracked until approved corrections were complete. Joseph also scheduled and facilitated Preparatory Inspection Meetings prior to the commencement of major work packages to review requirements including plans, specifications, permit requirements, inspection/testing frequency, and potential personal/traffic safety issues. (5/11 – 12/12, with NXL)

Relevancy: Provided QA services in accordance with VDOT requirements for this design-build project involving bridge widening, grading, drainage, paving, sound walls, lighting, traffic and signals.

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

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

As the Quality Assurance Manager, Joseph will not be required to be on-site full-time.
Design Manager
ATTACHMENT 3.3.1

KEY PERSONNEL RESUME FORM

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<th>Brief Resume of Key Personnel anticipated for the Project.</th>
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<tbody>
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<td>a. Name &amp; Title:</td>
</tr>
<tr>
<td>Derek Overstreet, P.E., Associate/Engineering Director</td>
</tr>
<tr>
<td>b. Project Assignment:</td>
</tr>
<tr>
<td>Design Manager</td>
</tr>
<tr>
<td>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):</td>
</tr>
<tr>
<td>STV Incorporated dba STV Group Incorporated (Full Time)</td>
</tr>
<tr>
<td>d. Employment History: With this Firm 12 Years With Other Firms 2 Years</td>
</tr>
<tr>
<td>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):</td>
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<tr>
<td>STV Incorporated dba STV Group Incorporated, August 2005-Present, Engineering Director/Associate</td>
</tr>
<tr>
<td>As Engineering Director and an Associate of STV, Derek is responsible for the successful delivery of all bridge and structure related projects throughout Virginia. He also serves as the Branch Manager for STV’s Richmond, VA office and oversees a staff of seven bridge engineers, technicians, and support personnel. He is serving as Project Manager for three bridge replacement projects, including roadway approaches, under a Limited Services Term Contract in the Salem District. Derek has more than 10 years of project management experience overseeing bridge projects, including the replacement and widening of interstate bridges and projects in karst topography.</td>
</tr>
<tr>
<td>Banker Steel Company, May 2003-August 2005, Project Manager</td>
</tr>
<tr>
<td>In this role, Derek was responsible for managing the fabrication and erection of structural steel projects throughout the Mid-Atlantic and Northeast regions. His management responsibilities included the development of erection plans, structural steel shop drawings, connection designs, purchasing, and shipment of structural steel. Derek also oversaw the QA/QC processes during fabrication, and was responsible for developing fabrication and erection schedules.</td>
</tr>
<tr>
<td>e. Education: Name &amp; Location of Institution(s)/Degree(s)/Year/Specialization:</td>
</tr>
<tr>
<td>University of Virginia, Charlottesville, VA / Master of Engineering / 2011 / Civil Engineering</td>
</tr>
<tr>
<td>Virginia Military Institute, Lexington, VA / BS / 2003 / Civil Engineering</td>
</tr>
<tr>
<td>f. Active Registration: Year First Registered/Discipline/VA Registration #:</td>
</tr>
<tr>
<td>2008 / Professional Engineer / Virginia #0402043698</td>
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<td>(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.)</td>
</tr>
<tr>
<td>VDOT I-581/Valley View Boulevard Interchange Phase II Design-Build, Roanoke, VA – Deputy Design Manager</td>
</tr>
<tr>
<td>Responsible for assisting with design management for the I-581 / Valley View Boulevard Interchange Phase II Design-Build in Roanoke, VA. The project includes implementing a diverging diamond interchange (DDI) by modifying the existing partial cloverleaf interchange. Other features of the almost $40 million project include construction of new auxiliary lanes along I-581, more than 6,000 linear feet of new sound barrier walls, installation of roadway lighting along Valley View Boulevard and at the interchange, ITS modifications, the widening and rehabilitation of the existing bridge carrying Valley View Boulevard over I-581, a new shared use path bridge over I-581 and ramps W and X, retaining walls, and an extension of an existing box culvert. Derek was responsible for the bridge designs, culvert modifications, and retaining walls. He also conducted interdisciplinary reviews to provide coordination and consistency between discipline interfaces (e.g., geotechnical with bridge foundations, maintenance of traffic with bridge construction activities, traffic signal and lighting conduit/support needs with bridge design). For example, he coordinated with the structural, drainage, and geotechnical disciplines to implement appropriate mitigation due to presence of karst topography. He assisted with establishing and overseeing the design QA/QC program, design reviews, specifications, working plans, shop drawings, RFI’s, non-conformance reports, design changes during construction, and constructability. (4/13 - Present, with STV)</td>
</tr>
</tbody>
</table>
Relevancy: DOT design-build delivery requiring staged bridge construction within an existing interchange in karst topography. The interchange concept reduced the interchange’s overall footprint, including the interchange ramps. The smaller footprint significantly reduced project risks and costs by minimizing impacts to existing utilities and eliminating the need to acquire and demolish five residential structures.

**VDOT I-95 Bridge Replacement over the Meherrin River, Emporia, VA - Deputy Project Manager**

Responsible for assisting with design management, including the management of STV’s design QA/QC program, for the replacement of the 540-foot-long dual bridges carrying I-95 over the Meherrin River in the City of Emporia, VA, for this $22.2 million VDOT project. Derek’s responsibilities include assisting in coordinating design activities of roadway, bridge, traffic, lighting, geotechnical, and drainage/hydraulics. Derek oversaw the preparation of a bridge concept study with eight alignment alternatives to address construction of the new bridges. Each alternative applied different strategies to maintain traffic, including the construction of new bridges off alignment, staged construction, temporary detour bridges, and the use of accelerated bridge construction techniques. During development of Public Hearing Plans, Derek and the VDOT Project Manager met with project stakeholders including the City of Emporia, adjacent property owners, and the owners of billboards within the project limits to obtain public acceptance with no public hearing. He was also responsible for conducting interdisciplinary reviews to provide coordination between the discipline interfaces.

Derek identified that the existing concrete pavement on I-95 had been overlaid with approximately 9-inches of flexible pavement and/or had been entirely removed. Recognizing that the removal of the existing concrete pavement could have a substantial impact on the construction cost, Derek coordinated with VDOT to complete a series of pavement cores to identify the makeup of the existing pavement sections. Derek was responsible for the development of the preliminary bridge plans, Stage I report, final bridge plans, and bridge load ratings. STV’s approach was to develop a design to reduce long-term maintenance. The new bridges were designed as five-span, 540-foot structures using prestressed concrete 61-inch-deep bulb-T beams made continuous for live load with semi-integral abutments. The new structures are entirely jointless and utilize CRR steel in accordance with VDOT S&B–IIM-81.7. The piers for each bridge consist of two hammerhead piers adjacent to the river and two multi-column piers in the floodplain. Two foundation designs were developed for Pier 1 on each bridge, which allowed the contractor the option to construct either a spread footing foundation or a drilled shaft foundation system. Pier 2 on each bridge is supported by drilled shaft foundations, while all other substructure elements are supported by steel H-piles driven to refusal. Derek assisted with design reviews, specifications, working plans, shop drawings, RFI’s, design changes during construction, and constructability. *(5/12 - Present, with STV)*

**Relevancy:** Interstate bridge replacement located in close proximity to an existing interchange with I-95 and Route 58 which required phased bridge construction, the development of a complex TMP/MOT plan, and stakeholder coordination. The profiles for both the new northbound and southbound bridges are also being raised to meet hydraulic design requirements for the project.

**VDOT I-264 Bridge Widening over former Norfolk Southern Railway – Deputy Project Manager**

Responsible for assisting with design management for the widening and rehabilitation of the existing bridge carrying I-264 over the former Norfolk Southern Railway in Virginia Beach, VA. The existing EBL structure is being widened and rehabilitated and the existing WBL structure is being rehabilitated in conjunction with the I-264/Witchduck Road Interchange and Ramp Extension project. Derek led STV’s efforts in developing the design, plans, and specifications, and was directly responsible for completing a life cycle cost analysis to compare rehabilitation and replacement alternatives. The final plans for EBL structure include milling and overlay of the existing deck slab, deck patching using high early strength concrete, joint closures at the piers, the replacement of the existing expansion joints at the abutments, and the replacement of all bearings. On both the EBL and WBL structures the bridge rehabilitation consists of performing structural steel repairs, retrofitting existing fatigue prone details, painting all structural steel, substructure concrete repairs, and repairs to the existing concrete slab slope protection. One of the most challenging aspects was the development of the bridge construction sequence and corresponding TMP/MOT plan to satisfy VDOT’s strict lane closure restrictions. He also helped establish and oversee the design QA/QC program and coordinated with outside stakeholders including the City of Virginia Beach, Hampton Roads Transit, and utility owners. Derek also coordinated constructability reviews. For example, he worked with VDOT to have the overhead power transmission line poles in conflict with the bridge construction relocated and the conductors raised to improve constructability. *(2/09 - Present, STV)*

**Relevancy:** Interstate bridge project located in close proximity to an existing interchange which required staged bridge construction and extensive interdisciplinary coordination between roadway, bridge, traffic, geotechnical, and drainage disciplines. The project also includes the repair and rehabilitation of the existing bridges, and emergency bridge repairs may be necessary during construction of the I-81 Bridge Replacement.

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

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

As the Design Manager, Derek will not be required to be on-site full-time.
Construction Manager
**Brief Resume of Key Personnel anticipated for the Project.**

| a. Name & Title: | John Ralston, Construction Manager |
| 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): | **Branch Civil, Inc. (Full Time)** |
| d. Employment History: With this Firm 3 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): |
| Branch Civil, Inc., December 2015-Present, Construction Manager | Responsible for all phases of Construction Management such as, planning, organizing, staffing, directing, controlling, and executing work. Projects include D-B, new and reconstructed highways, bridges and heavy civil work for state departments of transportation, federal government agencies, and private corporations. His responsibilities include scheduling and supervising manpower and equipment, owner/subcontractor/supplier contact and coordination, modification/extra work estimating, pricing and negotiation, claims management, EEO compliance, and enforcement and compliance with corporate safety regulations, including training. |
| Branch Civil, Inc., May 2014-December 2015, Estimator | Worked as part of pursuit teams for VDOT and NCDOT D-B projects, including the Route 29 Solutions Design-Build project, specializing in bridge and structures estimating. John used technology and his experience, along with takeoff information, site visits, and project research, to prepare accurate estimates including all elements of material, labor, equipment, and subcontracts to conform to the contract documents and construction approach. Once the project was awarded, he worked with operations during internal project handoff meetings to review how the project was bid, including cost, resources, and construction methods used to create the bid estimate and continued as a resource of bid information throughout construction. |
| DLB, Inc., June 2011-May 2014, Vice President of Field Operations | Promoted to Vice President with involvement in all facets of this mid-sized construction company, and was engaged in multiple areas including estimating, project management, corporate operations, and personnel. He specialized in bridge construction, but also involved in grading, utilities, culvert rehabilitation, and trenchless pipe installation. |
| DLB, Inc., September 2009-June 2011, Project Manager | John acted as primary point of contact for owner and overall manager for construction operations. He attended progress meetings with owner’s staff to ensure effective resolution of any issues in a timely manner to ensure maintenance of the project schedule. He oversaw execution of project schedule to ensure resource allocations were aligned to meet key milestones or constraints. |
| VDOT, May 1999-September 2009, Environmental Monitor | Worked as a Department representative focused on environmental compliance relative to E&S, permits, and stormwater management. He fulfilled the role of SME for inspection staff and contractor personnel to implement BMP’s and maintain regulatory adherence while honoring VDOT’s broader goal of building and maintaining roads. |
| e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: | **Virginia Polytechnic Institute and State University / Blacksburg, VA / BS / 2007 / Civil & Environmental Engineering** |
| f. Active Registration: Year First Registered/Discipline/VA Registration #: | 2017 / Adult First Aid/CPR/AED / GUCIM10 |
| 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.)
VDOT Southgate Drive Interchange, Blacksburg, VA – Project Manager
In John’s role as Project Manager for this $39.6 million project, he has been responsible for overseeing all management and construction. This project consisted of realignment of 3.6 miles of existing roadway and the construction of a new diverging diamond interchange including a new bridge, retaining walls and box culverts. John has partnered with VDOT and their project staff to coordinate scheduling and work flow as areas of the project have become available. It can be anticipated that the Exit 114 Project will be similar to the Southgate Drive Interchange Project which will include managing multiple phases of MOT, ensuring environmental compliance and stewardship, providing timely resolution of geotech concerns and complying with QA/QC requirements. John maintained effective communication with all stakeholders including VDOT, Virginia Tech, local community and agricultural and industrial businesses while addressing their concerns. John managed all subcontractors and vendors, provided oversight and execution of all purchase orders and subcontracts, facilitated conflict resolution, oversaw the RFI and submittal process and provided value engineering opportunities. Maintenance of traffic has been a focused concern to maintain 4 lanes of traffic on Route 460 and keeping lanes open along Southgate Drive entering Virginia Tech’s campus. John effectively managed VDOT’s and Virginia Tech’s concern of traffic impacts during construction as well as diligently pursued solutions to the many geotechnical challenges. The project is currently scheduled to finish 6 months early.
(12/15 - Present, with Branch)

Relevancy: VDOT Project, FHWA guidelines and requirements, secondary road alignment/widening, bridge construction, ROW acquisition, utility relocations, wetland and stream mitigation, geotechnical challenges/mitigation including unsuitable material, Traffic Management Plan development and execution, public involvement/communications, QA/QC coordination

VDOT Route 114 (Peppers Ferry Road) Widening, Christiansburg VA – Project Manager
John was responsible for all procurement and construction management on this $13.5 million project including the coordination of all roadway activities including earthwork, storm drainage, erosion control, MOT, construction in environmentally sensitive areas, and addressing geotech concerns. John also led the project team in the construction of a new pedestrian bridge to carry foot traffic for the Huckleberry Trail over Route 114. Two miles of Route 114 were widened from 2 lanes to 4 lanes with a center turn lane. Travel lanes along Route 114 were maintained during construction and access to the local businesses and nearby New River Valley Mall were a focal point during construction. John provided information to VDOT to help their Public Relations effort and he managed the Contractor’s relationship with the effected stakeholders. John was responsible for ensuring that the project was staffed appropriately and schedule milestone dates were met.
(06/10 – 09/12, with DLB, Inc.)

Relevancy: VDOT Bid-Build, FHWA guidelines and requirements, primary road widening, utility relocations, geotechnical challenges/mitigation, Traffic Management Plan development and execution, public involvement/communications, QA/QC coordination, bridge construction, MSE walls.

VDOT I-81 Bridges over Scratch Gravel Road, Marion, VA – Project Manager
John was responsible for leading the procurement effort and construction management of this $5.5 million interstate bridge replacement project. John oversaw the construction process, worked with VDOT to overcome geotechnical challenges, managed the maintenance of traffic and led the bridge construction team by using top down construction techniques to complete the project on time. The existing interstate bridges carrying I-81 traffic over Scratch Gravel Road were in dire need of replacement due to excessive deterioration. VDOT’s procurement process was bid-build, however, construction was accelerated to meet an aggressive completion date. VDOT allowed 330 days for construction with an incentive if the project was completed in 300 days. The project consisted of replacing the existing structures by constructing the new twin bridges half at a time. Traffic in each the NB and SB lanes were placed into one lane. This allowed for partial demolition of each of the existing bridges and construction of half of the new. Top down shoring was performed to allow for the piers to be constructed. Due to saturated soils, a modified approach to temporary shoring was used by pre-boring for pile to install a soil nail wall. The project was completed early and full incentive was earned.
(08/11 – 08/12, with DLB, Inc.)

Relevancy: VDOT Bid-Build, FHWA guidelines and requirements, interstate bridge replacement, geotechnical challenges/mitigation, Traffic Management Plan development and execution, public involvement/communications, QA/QC coordination, phased bridge construction, accelerated construction schedule.

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

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

John is currently Project Manager on the Southgate Drive Interchange for VDOT’s Salem District. He will be available and 100% dedicated to the Exit 114 project prior to commencement of construction.
**Lead Contractor - Work History Form**

**Project Narrative**

The Project consisted of upgrading to current Interstate Highway Standards, a 2.2 mile section of I-64 in Alleghany County. Virginia that included replacement of two existing bridges on I-64 over the Jackson River. The work was performed sequentially with Interstate traffic maintained in both directions during the entire project utilizing two newly constructed temporary crossovers. Traffic on the eastbound and westbound lanes of I-64 was reduced to one lane then, by using the crossovers, both lanes were shifted into the existing eastbound lane. After traffic was shifted, the westbound lane bridge was demolished and a new seven-span bridge was constructed. One lane, two-way traffic was shifted onto the newly constructed westbound bridge to allow the existing eastbound bridge to be demolished. A new seven-span bridge was constructed in its place. Two lanes, two-way traffic was placed in its final pattern after the eastbound bridge construction was complete.

**Project Scope**

**Structures** | The existing 1-64 bridges were replaced with two bridges spanning 600 ft. each over the Jackson River. Causeways and cofferdams were used to access the work adjacent to the Jackson River. There was particular focus on environmental controls with construction being adjacent to the Jackson River. Concrete girders were used for bridge construction. Scour was addressed with the installation of over 4,000TN of grouted rip rap installed below the bridge.

**Roadway Improvements** | Over 2 miles of I-64 was reconstructed including over 5,000LF of new storm drain installation and two storm water management basins. 40,000CY of undercut and backfill was performed to overcome soft soils and 45,000TN of asphalt was placed.

**Geotechnical Challenges** | Shallow rock and marginal soils were issues for the Project. Different foundation designs for the bridges were explored including H-pile, drilled shaft, and spread footings. Existing soils were modified or replaced to achieve the proper bearing for roadway construction.

**Maintenance of Traffic and Traffic Management Plan (TMP)** | A phased Traffic Management Plan was used to maintain traffic flow on I-64 and to allow construction to progress. Median crossovers were put in place to revise traffic to a one lane, two-way configuration. Traffic was kept in this pattern and shifted from the westbound lane to the eastbound lane to accommodate construction. Barrier wall was installed in two locations to separate the lanes of traffic as well as to provide a positive protection between traffic and the construction work area.

**Branch's Role**

Branch was the Prime contractor for this design-bid-build project which included managing all construction activities, constructing all roadway improvements and performing all work to replace the dual bridges over the Jackson River. The project team was responsible for all erosion control, grading, storm water management and maintenance of traffic. Branch partnered with VDOT and other project stakeholders to address any concerns.

**Evidence of Good Performance**

**Geotechnical Challenges** | Branch worked with VDOT to overcome the differing site conditions associated with structure foundations. Branch helped to coordinate on-site investigation and foundation alternatives with VDOT. Branch quickly responded to address the low CBR value material on existing I-64.

**Maintenance of Traffic** | Branch’s project team partnered with VDOT and the Virginia State Police to safely and effectively shift traffic throughout the many phases of the Traffic Management Plan. Branch designated a Traffic Control Supervisor to monitor the work zone and make adjustments as necessary. Branch coordinated with other project stakeholders and worked with the Virginia State Police to clear accidents within the work zone.

**Meeting Milestone Dates** | Branch experienced geotechnical, weather and access to the project challenges throughout construction. Additional resources and re-prioritizing activities in the schedule contributed to the schedule. Branch made every effort to respond quickly when project challenges arose.

<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
<th>b. Name of the prime design consulting firm responsible for the overall project design.</th>
<th>c. Contact information of the Client or Owner and their Project Manager who can verify Firm’s responsibilities.</th>
<th>d. Contract Completion Date (Original)</th>
<th>e. Contract Completion Date (Actual or Estimated)</th>
<th>f. Contract Value (in thousands)</th>
<th>g. Dollar Value of Work Performed by the Firm identified as the Lead Contractor for this procurement.(in thousands)</th>
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<tr>
<td>I-64 Jackson River Bridge Replacement</td>
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<td>06/2004</td>
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<th>Name of Client: Owner:</th>
<th>Phone:</th>
<th>Project Manager:</th>
<th>Email:</th>
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<tr>
<td>VDOT</td>
<td>(540) 332-9075</td>
<td>J.W. White, Jr.</td>
<td><a href="mailto:jimmy.white@vdot.virginia.gov">jimmy.white@vdot.virginia.gov</a></td>
</tr>
</tbody>
</table>

| h. Narrative describing the Work Performed by the Firm identified as the Lead Contractor for this procurement. If the Offeror chooses to submit work completed by an affiliated or subsidiary company of the Lead Contractor, identify the full legal name of the affiliate or subsidiary and the role they will have on this Project, so the relevancy of that work can be considered accordingly. The Work History Form shall include only one singular project. Projects with multiple phases, segments, elements, and/or contracts shall not be considered a single project. If a project listed includes multiple phases, segments, elements, and/or contracts, the SOQ may be rendered non-responsive. In any case, only the first phase, segment, element, and/or contract listed will be evaluated. |
**Lead Contractor - Work History Form**  
**ATTACHMENT 3.4.1(a)**

**LIMIT 1 PAGE PER PROJECT**

<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
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<tr>
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<td>Owner requested changes to scope</td>
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<td>US Route 58, Phase II Hillsville Bypass</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

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**COMPLETED ON SCHEDULE AND ON BUDGET**

- Relevancy to the I-81 Bridge Replacement at Exit 114
  - VDOT DB/PPTA
  - Salem District
  - Roadway alignment/widening
  - Construction of bridges
  - Utility relocations
  - Survey
  - Environmental
  - Geotechnical
  - Hydraulics
  - Traffic control devices
  - MOT
  - Subgrade stabilization
  - Storm sewer installation
  - Public involvement
  - QA/QC
  - Complex construction sequencing
  - Adjacent project/stakeholder coordination

**Project Narrative**

As the Design-Build Contractor for this second phase of the Route 58 PPTA Corridor Improvements project, Branch was responsible for design, construction, utility relocation, permitting, wetlands/environmental mitigation and quality control involved with building this 5.2-mile stretch of new four-lane divided highway in Hillsville, VA. In addition to mass cut to fill operations in excess of one million CY, drainage, roadway construction, mitigation of 5 acres of wetlands and extensive stream mitigation, the project included construction of seven bridges and three full interchanges – one of which ties into I-77 southwest of Hillsville, VA. This project was completed by the Branch/HNTB Team ahead of schedule and within original budget, with no change orders requested and no major quality or safety issues.

Over the 5.2 miles of this project, Branch encountered clay (CL), silty sands (SM), silt (MH), high plasticity elastic silt (ML) and mass rock excavation. This experience with varying soil types is important to the I-81 Exit 114 Project because Branch expects varying soil types will be encountered over the length of realignment along I-81 and possibly at the bridge abutments. Our team is experienced at adapting to varying soil types. The Hillsville Bypass also stabilized unsuitable subgrade material with soil cement. Given the anticipation of lime or cement stabilization as a tool to handle a portion of the geotechnical risk on the I-81 Bridge Replacement at Exit 114 project, this proves our team will use our past experience to explore options to overcome the geotechnical challenges anticipated.

**Project Scope**

- **Structures** | Structure construction included seven new bridges and deck replacement of one bridge (7,000sf). Of the seven new bridges, two were twin bridges at Snake Creek Road. Due to variable subbase conditions, multiple foundation designs were used for the abutments. MSE Walls were used at Beaver Dam Creek to avoid impacts and environmental concerns.

- **Roadway Improvements** | 5.2 miles of limited access roadway was constructed. The roadway construction consisted of mass excavation and presented many geotechnical challenges which included varying subsurface conditions at bridge abutments and low CBR values for roadway construction. Almost 250,000cy of cement stabilization was applied and over 100,000tn of cement treated aggregate was placed. 18,000lf of asphalt curb was installed along with 110,000sf of asphalt placed.

- **Maintenance of Traffic and Traffic Management Plan (TMP)** | In order to construct a new bridge over Little Reed Island Creek, median crossovers were constructed to manage traffic. Traffic was diverted using the crossovers to construct the first bridge, traffic was then shifted onto the new bridge to allow construction of the second bridge. A similar MOT plan will be put in place for the I-81 Exit 114 project. In order to construct the new bridge for Howlett Street, a road closure and detour was put in place to allow for construction of the 90ft tall structure. A phased MOT plan was incorporated for the overall project to allow traffic to continue to flow while construction progressed. Multiple phases and traffic shifts were utilized to allow for roadway and structure construction.

**Branch’s Role**

Branch was the Prime Contractor for this design-build project which included the management of design and construction activities. Branch was responsible for all subcontractors which included bridge construction and asphalt paving. The project team oversaw the installation of all environmental controls, maintenance of traffic, and roadway construction. Branch actively partnered with VDOT to participate in Public Outreach and address property owner concerns.

**Evidence of Good Performance**

- **Public and Stakeholder Outreach** | Joint town meetings were held in Hillsville before breaking ground to discuss construction. Branch partnered with VDOT in these meetings in order to coordinate and communicate with local residents. A particular focus of the partnering effort was to contact home owners being affected by right-of-way acquisition.

- **Geotechnical Challenges** | The subsurface conditions at each bridge location varied widely. As boring information at abutment locations was provided, a quick turnaround time for foundation design was required for Branch to perform a constructability review. The final foundation design for abutments consisted of a mix of driven and drilled pile. The presence of low CBR value material found at subgrade presented another geotechnical challenge to overcome. Cement treated soil stabilization was used to treat the subgrade. The project schedule was minimally impacted due to quick resolutions to these geotechnical issues.

- **Meeting Milestone Dates** | Project was completed on time.
**NEW GRADE SEPARATED DIVERTING DIAMOND INTERSECTION**

**PROJECT IS 6 MONTHS AHEAD OF SCHEDULE**

<table>
<thead>
<tr>
<th>Relevancy to the I-81 Bridge Replacement at Exit 114</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salem District</td>
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<tr>
<td>High traffic volumes</td>
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<td>Complex MOT</td>
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<tr>
<td>Road widening &amp; realignment</td>
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<tr>
<td>Maintenance of existing lanes</td>
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<td>Safety, congestion concerns</td>
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<td>Geotechnical constraints</td>
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<td>Bridge construction</td>
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<tr>
<td>Traffic control devices</td>
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<td>Stakeholder coordination</td>
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<tr>
<td>Public Involvement/Relations</td>
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<td>Roadway signage</td>
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<tr>
<td>Overhead signs</td>
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</tbody>
</table>

**Project Narrative**

The existing at-grade intersection of US 460 and Southgate Drive functions as the gateway Virginia Tech. The intersection experiences significant queues during the AM and PM peak hours as well as during major events on campus, thus hampering through movements along US 460 and creating safety concerns with rear end collisions. This project provides a grade separated diverging diamond interchange and realignment in a new location southeast of the existing intersection. Project improvements include 3.6 miles of roadway improvements, construction of two roundabouts, 175,000cy of excavation, and 163,000cy of borrow embankment. Structure construction includes two bridges, three pedestrian underpasses, and two MSE retaining walls. The bridges have extensive aesthetic components due to the location and proximity to Virginia Tech.

**Roadway Improvements**

Structure | The new intersection is grade separated requiring a diverging diamond bridge design to carry traffic along Southgate Drive over US 460. Over 1,100ft of retaining walls are being constructed in order to prevent any other right-of-way impacts. There are three 3-sided box culvert pedestrian underpasses being constructed as part of this project to improve pedestrian safety.

**Project Scope**

- **Geotechnical Challenges** | Extensive adjustments to proposed structure foundation designs are necessary due to the inconsistent competent rock elevations relative to the original plans. As a result, a mixture of driven pile, pre-bored pile, and spread footings are being utilized to provide proper bearing.
- **Public Relations** | Branch is partnering with VDOT and Virginia Tech to keep the public informed of planned improvements and current progress.
- **Maintenance of Traffic and Traffic Management Plan (TMP)** | The existing intersection at US 460 and Southgate Drive is remaining active during construction. A phased traffic control plan is being followed to maintain traffic on US 460, which carries 38,000VPD, and 14,580VPD on Southgate Drive. Time restrictions are in place to limit disruptions to the travelling public. Intermediate completion dates and durations are in place to construct the project in areas where new construction overlaps with existing.

**Branch's Role**

Branch is the Prime Contractor for the project which includes overseeing all aspects of construction. Branch is self-performing all activities associated with erosion control, mass grading, fine grading, storm drain, water/sewer, base stone, and traffic control installation and maintenance. Branch is managing all subcontractors on the project including the construction of the diverging diamond bridges, pedestrian underpasses, overhead signs and asphalt paving. Branch is partnering with VDOT and Virginia Tech to participate in Public Outreach and education opportunities about the construction and the diverging diamond intersection.

**Evidence of Good Performance**

- **Public and Stakeholder Outreach** | Branch is taking an active role in partnering with VDOT and Virginia Tech. Branch has hosted public outreach meetings to educate the industry, general public, and Virginia Tech affiliates on the improvements being constructed.
- **Geotechnical Challenges** | Branch is proactively working with VDOT to mitigate impacts from the differing site conditions presented by the variations in rock discovered at all major structure locations and is assisting with establishing the most viable path forward to maintain scheduled progress.
- **Maintenance of Traffic** | Branch worked with VDOT, Virginia Tech, and other project stakeholders to address traffic concerns during construction. In addition to reducing the phasing required to construct the Duck Pond Drive Roundabout, Branch utilized a night time detour along Route 460 to stage and erect girders for the diverging diamond bridges. The use of this detour dramatically reduced the impact to traffic along Route 460 and improved worker safety.
- **Meeting Milestone Dates** | Branch has successfully constructed the roundabouts at Research Center Drive and Duck Pond Drive. Branch worked with VDOT to reduce the number of phases to construct the Duck Pond Drive roundabout effectively reducing the overall schedule and improving the quality and constructability. The project is currently 6 months ahead of schedule.

**CONTACT INFORMATION**

<table>
<thead>
<tr>
<th>Name: Southgate Drive Interchange</th>
<th>Location: Blacksburg, VA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name: A. Morton Thomas &amp; Associates, Inc.</td>
<td>Phone: (540) 387-5488</td>
</tr>
<tr>
<td>Project Manager: Duane Mann, PE Phone: (540) 381-7195 Email: <a href="mailto:m.mann@vdot.virginia.gov">m.mann@vdot.virginia.gov</a></td>
<td></td>
</tr>
<tr>
<td>Project Manager: Ed Mann, PE Phone: (540) 381-7195 Email: <a href="mailto:e.mann@vdot.virginia.gov">e.mann@vdot.virginia.gov</a></td>
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<table>
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<tr>
<th>Name: VDOT</th>
<th>Name of Client: VDOT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phone: (540) 387-5488</td>
<td>Phone: (540) 381-7195</td>
</tr>
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<table>
<thead>
<tr>
<th>c. Contact information of the Client or Owner and their Project Manager who can verify Firm's responsibilities.</th>
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<tbody>
<tr>
<td>Phone: (540) 387-5488</td>
<td>12/2018</td>
<td>07/2018 (Estimated)</td>
<td>$38,700</td>
<td>$39,600 (Owner change of scope and quantity overrun)</td>
</tr>
<tr>
<td><a href="mailto:m.mann@vdot.virginia.gov">m.mann@vdot.virginia.gov</a></td>
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<table>
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</table>
INTERNESTE BRIDGE REPLACEMENT

Relevancy to the I-81 Bridge Replacement at Exit 114
- Interstate bridge replacement
- Raised profile
- Complex MOT
- Safety concerns
- High traffic volumes
- Stakeholder coordination

Project Narrative
STV was the lead designer providing engineering services for the replacement of the 540-foot-long dual bridges and associated approaches on I-95 over the Meherrin River. The existing bridges were built in 1959 and have been recommended for replacement to improve safety by correcting the functionally obsolete shoulder widths and to correct the low sufficiency ratings of the existing structures. STV’s scope of services includes bridge and structure design, roadway design, traffic control devices, transportation management plans, environmental analysis, construction services, and public outreach. STV’s offices in Fairfax and Richmond, VA performed the design work.

Evidence of Good Performance
Public and Stakeholder Outreach
- STV coordinated with VDOT to complete a series of pavement cores within the project limits to map/identify the makeup of the existing pavement sections.
- STV provided two new bridges with adequate typical sections to address safety deficiencies as well as ample space for future widening.

Low Maintenance Solution
STV’s approach to the design of the new bridges was to develop a cost effective bridge design and reduce long-term maintenance needs for VDOT. The new bridges are entirely jointless, utilize corrosion resistant reinforcing steel in accordance with the VDOT Minimum Corrosion Protection Guide, and use low permeability concrete.

Lead Designer – Work History Form (Limit 1 page per project)

<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
<th>b. Name of the prime/ general contractor responsible for overall construction of the project.</th>
<th>c. Contact information of the Client and their Project Manager who can verify Firm’s responsibilities.</th>
<th>d. Construction Contract Start Date</th>
<th>e. Construction Contract Completion Date (Actual or Estimated)</th>
<th>f. Contract Value (in thousands)</th>
<th>g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement (in thousands)</th>
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</thead>
<tbody>
<tr>
<td>I-95 Bridge Replacement over the Meherrin River Location: Emporia, VA</td>
<td>Derek Overstreet, P.E.</td>
<td>Name: G.A. &amp; F.C. Wagman, Inc. Name: Client: VDOT Phone: (804) 371-2778 Phone: (804) 371-2778 Email: <a href="mailto:jiuwang.li@vdot.virginia.gov">jiuwang.li@vdot.virginia.gov</a></td>
<td>01/2016</td>
<td>10/2019 (est.)</td>
<td>$22,245</td>
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Project Scope
Structures
- The new bridges were designed as five-span, 540-foot long structures using prestressed concrete 61-inch deep bulb-T beams made continuous for live load with semi-integral abutments. Two different span patterns were developed and incorporated into the plans for the prestressed concrete beams, allowing the use of either 0.5-inch diameter strands or 0.6-inch diameter strands. The new structures are entirely jointless, and require a deck drainage system.
- The piers for each bridge consist of two hammerhead piers adjacent to the river and two multi-column piers in the floodplain. Two foundation designs were developed for Pier 1 on each bridge, which allows the contractor to construct either a spread footing foundation or a drilled shaft foundation system. Pier 2 on each bridge is supported by drilled shaft foundations while all other substructure elements are supported by steel H-piles driven to refusal.

Difficult Geology
- Soft ground conditions were identified in the vicinity of the northern approach to the southbound bridge in planned fill areas. To improve the conditions, densified aggregate piers (DAPs) were incorporated in the design. The location of the DAPs was coordinated at the Work Performed by the Firm identified as the Lead Designer for this procurement.

Soft ground conditions were identified in the vicinity of the northern approach to the southbound bridge in planned fill areas. To improve the conditions, densified aggregate piers (DAPs) were incorporated in the design. The location of the DAPs was coordinated at the Work Performed by the Firm identified as the Lead Designer for this procurement.

Roadway
- The project includes a total of 1.1 miles of interstate roadway reconstruction. The existing bridges were located in a sag vertical curve, which did not meet a minimum design speed of 70 mph and the low point was located on the south end of the existing bridges. To meet a minimum design speed of 70 mph, locate the low point in the sag vertical curve of the new bridges, and meet all hydraulic requirements, the roadway profile was raised by approximately 4-feet.

Low Maintenance Solution
- STV’s approach to the design of the new bridges was to develop a cost effective bridge design and reduce long-term maintenance needs for VDOT. The new bridges are entirely jointless, utilize corrosion resistant reinforcing steel in accordance with VDOT’s Minimum Corrosion Protection Guide, and use low permeability concrete.

MOT
- STV evaluated eight alignment alternatives, applying different MOT strategies and accelerated bridge construction (ABC) techniques. Factors considered included construction cost, constructability, impacts to the horizontal/vertical alignment, lifecycle costs, and hydraulic impacts. VDOT accepted STV’s recommendation to construct a new southbound structure on a new alignment while the northbound structure would be reconstructed along its present alignment. This approach expedites the schedule and minimizes safety and traffic operations impacts. The MOT scheme employs shifting southbound traffic to the new southbound bridge once completed, shifting northbound traffic to the former southbound bridge so the northbound bridge can be demolished and reconstructed along the same horizontal alignment. This approach provided two new bridges with adequate typical sections to address safety deficiencies as well as ample space for future widening. The final structure design and roadway approaches were completed on an accelerated schedule to meet the scheduled advertisement.

Interstate bridge
- The project includes a total of 1.1 miles of interstate roadway reconstruction. The existing bridges were located in a sag vertical curve, which did not meet a minimum design speed of 70 mph and the low point was located on the south end of the existing bridges. To meet a minimum design speed of 70 mph, locate the low point in the sag vertical curve of the new bridges, and meet all hydraulic requirements, the roadway profile was raised by approximately 4-feet.

Evidence of Good Performance
- Public and Stakeholder Outreach: STV coordinated with VDOT to complete a series of pavement cores within the project limits to map/identify the makeup of the existing pavement sections.

*For a project with multiple phases or multiple contracts, only one phase or one contract will be considered. If additional phases or contracts are shown under the same Work History Form, only the first phase or contract listed will be evaluated.
ATTACHMENT 3.4.1(b)

LEAD DESIGNER - WORK HISTORY FORM

(LIMIT 1 PAGE PER PROJECT)

<table>
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<tr>
<th>a. Project Name &amp; Location</th>
<th>b. Name of the prime/general contractor responsible for overall construction of the project.</th>
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<td>I-581/Valley View Boulevard Interchange Phase II Design-Build</td>
<td>The NAME Construction Corporation</td>
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<td>09/2017 (est.)</td>
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<tr>
<td>Location: Roanoke, VA</td>
<td>Name: The LANE Construction Corporation</td>
<td>Phone: (540) 378-5353</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Project Manager: Bobby Phlegar</td>
<td>Phone: (540) 378-5083 (office)</td>
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<td>(540) 598-7282 (cell)</td>
<td>Email: <a href="mailto:r.phlegar@vdot.virginia.gov">r.phlegar@vdot.virginia.gov</a></td>
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h. Narrative describing the Work Performed by the Firm identified as the Lead Designer for this procurement. Include the office location(s) where the design work was performed and whether the firm was the prime designer or a subconsultant. The Work History Form shall include only one singular project. Projects with multiple phases, segments, elements, and/or contracts shall not be considered a single project. If a project listed includes multiple phases, segments, elements, and/or contracts, the SOQ may be rendered non-responsive. In any case, only the first phase, segment, element, and/or contract listed will be evaluated.

Project Narrative: STV was the Lead Designer providing professional engineering services for the modification of an existing partial interchange to provide better local access to the regional Valley View Mall and relieve congestion along Hershberger Road. During the design-build procurement of this almost $40 million project, the STV team proposed a diverging diamond interchange (DDI) to improve the existing partial interchange. The DDI provided many advantages over the one quadrant partial cloverleaf interchange proposed in the RFP document. The DDI reduced the overall footprint of the interchange, reduced the required width of the bridge carrying Valley View Boulevard over I-581 by 37.5 feet, and reduced the southbound I-581 deceleration lane by 900 feet. The DDI also eliminated over 900 ft of stream relocation work, significantly reduced impacts to existing utilities, and entirely eliminated the need for the acquisition/demolition of five residential structures, which significantly reduced project risk. STV’s offices in Fairfax, VA and Richmond, VA performed the design work. This project was designed to allow for the extension of Valley View Boulevard in the future. This includes the design and construction of stub-outs for the interchange ramps and installing conduits on the bridge and under the roadway for future traffic signals. Derek Overstreet, P.E. (STV) was the Deputy Design Manager, responsible for assisting in the design management of the project.

Structures | STV developed design plans for the widening and rehabilitation of the bridge carrying Valley View Boulevard over I-581, a shared use path bridge over I-581 and ramps W and X, three retaining walls, an extension of an existing box culvert, and more than 6,000-ft of sound barrier walls. Staged construction was implemented to complete the bridge widening, modification, and rehabilitation work on the bridge while maintaining traffic throughout construction.

Difficult geology | The project is underlain by two geologic formations susceptible to karst formations. A detailed karst evaluation was completed during the geotechnical investigation and development of the final geotechnical engineering report. Recommendations and appropriate methods of mitigation were incorporated into the design, such as the use of clay liners for the stormwater management basins.

Maintenance of traffic | I-581 is a critical linkage between I-81 and the City of Roanoke. STV developed a detailed TMP, which involved extensive coordination and input from various design disciplines, members of the construction team, VDOT, FHWA, the City of Roanoke, and other stakeholders. Integrating the construction and widening of the bridges and retaining wall structures was a critical component to the development of the Sequence of Construction (SOC) plans. Construction activities also required coordination with an adjacent bridge replacement project that was taking place concurrently on I-581 at Elm Avenue.

Evidence of Good Performance

Public and Stakeholder Outreach | Public understanding and acceptance of the DDI concept was essential to project success. STV hosted a Citizen’s Information Meeting (CIM) supported by DDI animations to keep stakeholders and the traveling public informed about the safety, constructability, and financial value inherent in the DDI concept. This was vital to the project moving forward into construction.

Low Maintenance Solution | The existing bridge carrying Valley View Boulevard over I-581 was retrofitted to eliminate the existing expansion joints and the new shared use path bridge is entirely jointless.

Responsive to Construction Inquiries | During construction, the team encountered challenges when driving piles on the project, due to the highly variable rock surface. By having our geotechnical engineer on-site during the pile installation work and STV’s bridge engineers on-call, we were able to redesign two foundation elements in a matter of hours allowing the contractor to get equipment to the next foundation element.

*For a project with multiple phases or multiple contracts, only one phase or one contract will be considered. If additional phases or contracts are shown under the same Work History Form, only the first phase or contract listed will be evaluated.
### LEAD DESIGNER - WORK HISTORY FORM

**LIMIT 1 PAGE PER PROJECT**

<table>
<thead>
<tr>
<th>a. Project Name &amp; Location</th>
<th>b. Name of the prime/ general contractor responsible for overall construction of the project.</th>
<th>c. Contact information of the Client and their Project Manager who can verify Firm’s responsibilities.</th>
<th>d. Construction Contract Start Date</th>
<th>e. Construction Contract Completion Date (Actual or Estimated)</th>
<th>f. Contract Value (in thousands)</th>
<th>g. Design Fee for the Work Performed by the Firm identified as the Lead Designer for this procurement. (in thousands)</th>
</tr>
</thead>
</table>
| SR 1727 (Linville Road) over the Ararat River, Design-Build | Name: Smith-Rowe | Name of Client: NCDOT  
Phone: (877) 368-4968  
Project Manager: Brandon Whitaker, PE  
Phone: (336) 530-6018  
Email: bwhitaker@ncdot.gov | 04/2014 | 10/2017 | $1,446 | $1,446 | $150 |

### Design-Build Bridge Replacement at Exit 114

**Project Narrative**

Since 2010, the North Carolina Department of Transportation (NCDOT) has used a bridge replacement program entitled *Express Design-Build* (EDB) for the purposes of rapid design and construction of deficient rural highway bridges across the state. The program is intended to ultimately rehabilitate or replace approximately 1,200 deficient bridges in all 14 State Highway Divisions. Smith-Rowe and STV have successfully partnered on eight separate EDB contracts involving 72 individual bridges. One of the most representative bridges completed is the SR 1727 (Linville Road) bridge over the Ararat River in Surry County, just below the Virginia state line. The existing bridge was a 180-foot long, 5-span, 5-girder bridge carrying two lanes of traffic.

**Relevancy to the I-81 Bridge Replacement at Exit 114**

- Complex MOT
- Safety concerns
- High traffic volumes
- Stakeholder coordination

**Project Scope**

STV designed and prepared final plans/specifications, and Smith-Rowe constructed, a replacement bridge comprised of three spans of 75-75-40 feet, for a total bridge length of 190 feet in length. The superstructure was comprised of six lines of AASHTO Type II prestressed concrete I-girders with composite reinforced concrete deck slab, while the substructure consisted of concrete end bents (with driven HP12X53 piles) and two interior concrete frame bents or piers supported on 42-inch diameter drilled shafts (caissons). The new bridge not only provides for an improved typical cross-section (12-foot lane widths) but also provides for a sidewalk on one side.

Other aspects of the scope included location surveys; subsurface utility engineering (SUE); traffic phasing/detour routing/public information; roadway design; utility coordination/relocations; geotechnical investigations/foundation design; drainage / hydraulics / erosion & sedimentation control; environmental permitting; maintenance of traffic, signage and pavement markings; structure design; ROW/easement acquisition; and construction phase support.

**Evidence of Good Performance**

**Early Project Delivery** | Construction was completed ahead of schedule with no claims, cost overruns, or lost-time injuries.

**Design Enhancements** | Design provided enhanced traffic safety and hydraulic capacity

**Responsive to Construction Inquires** | Response to Requests for Information (RFIs) was less than 24 hours

*For a project with multiple phases or multiple contracts, only one phase or one contract will be considered. If additional phases or contracts are shown under the same Work History Form, only the first phase or contract listed will be evaluated.*